Common School Trust Coal Ownership
Township 3 South, Range 45 East, Sections 26, 34 and 36
Township 4 South, Range 45 East, Sections 2, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 and 36
9,543 acres
Powder River County
Common School Trust

Action Requested

The department requests Land Board authorization to distribute and solicit public comment on the Montana Otter Creek State Coal Valuation Report.

Brief Background

The Otter Creek tracts are the end product of the controversy over the proposed Crown Butte Mine. The Crown Butte mine was to be located near Yellowstone Park, but did not involve state trust land. Because of the controversial location, the Federal government bought out the mining rights in order to prevent the operator from obtaining a mining permit from the Montana Department of Environmental Quality. The State of Montana argued this Federal action hurt Montana through loss of jobs and taxes that would have been generated if the mine had been allowed to proceed.

The Federal government subsequently passed legislation that would convey to the State, either \$10 million in cash, the Otter Creek tracts, or other mineral rights agreed to by the State and Federal government. The State chose the Otter Creek tracts. They are located about 10 miles southeast of Ashland, Montana. Otter Creek flows northward through the Otter Creek tracts to its confluence with the Tongue River at Ashland. The Custer National Forest is adjacent to the Otter Creek tracts on both the east and west sides, with the eastern boundary of the Northern Cheyenne Reservation (Tongue River) approximately 10 miles to the west. The Otter Creek project area is currently viewed as containing up to three adjacent areas of potential reserves, which are referred to as "Otter Creek 1,2, and 3."

The Federal conveyance to the State was approved by the State Land Board on May 20, 2002, and certified by the Governor's Executive Order No. 12-02 on May 28, 2002. The Federal conveyance includes only mineral estate; no surface ownership was transferred. Pursuant to Article X, Section 2 of the Montana Constitution, these tracts became part of the common (i.e. public, K-12) school trust. Surface ownership is a combination of retained Federal and private ownership. The tracts conveyed to the State total 7,623 acres and are depicted on the attached map in dark blue. The State already possessed some state school trust ownership within the Otter Creek area, which are depicted in lighter blue. This brings the State's full ownership interest to about 9,543 acres.

Prior to the Federal conveyance of the Otter Creek tracts, the Land Board entered into a February 19, 2002 Settlement Agreement with the Northern Cheyenne Tribe (NCT). The NCT had

threatened to file suit against the Federal government opposing the transfer, unless the State entered into an agreement with NCT. This agreement places certain restrictions on any coal leases that may ultimately be issued by the Land Board.

Property Information

State recoverable coal totals 616 million tons, or about one-half of the total 1.3 billion ton reserve. Of that, 572.3 million tons is unleased. Initial capital investment to develop the property is estimated at \$1.0 billion.

Anticipated coal quality in the Otter Creek area is 8,600 btu/lb, with relatively low sulfur (i.e. "compliance" coal), which is good, but with relatively high sodium content. The higher sodium content limits existing markets to those plants in the upper mid-West that possess boilers and related equipment that can handle high sodium coal. To reach these markets, the mine area would need rail access to the north (the northern portion of proposed Tongue River railroad) to connect it with existing rail-lines at Miles City, Montana. The most favorable route would require construction of approximately 90 miles of railway.

The other potential market would be construction of a coal-fired electrical generating plant (specifically designed to handle Otter Creek coal) near the Otter Creek tracts. In addition to the plant, a significant investment in power line infrastructure would be required.

The State's ownership, though significant, comprises about one-half of the area – in a checkerboard pattern. Great Northern Properties LP (GNP) – the successor to the original railroad grant to Great Northern Railroad, owns the other half. If a mine is to be developed, it will, by necessity, include both State and GNP coal lands.

Previous State/DNRC Activities

DNRC and GNP previously entered into a Memorandum of Agreement consistent with our common goal. Both the State and GNP are interested in this area being evaluated and potentially developed for energy production, and both understand that commercial development requires the State and GNP properties to be developed together.

The 2003 Legislature passed Senate Bill 409, which identified areas of data acquisition that would be beneficial to prepare a package of tracts for possible leasing. The legislature also included \$300,000 in spending authority for the department to engage in pre-lease data acquisition and evaluation.

DNRC utilized funding authorized by Senate Bill 409 to acquire both coal resource and cultural inventory data. DNRC engaged Kennecott Energy in an exploration process to acquire additional core data and analysis. The drilling program was completed during the 2004 field season, with data delivered to DNRC in October 2004. The primary goals of the drilling and coring program were to develop additional data on sodium and trace elements, and further delineate the extent of the coal resource. Interested coal companies will utilize this data to further assess their interest in the Otter Creek tracts.

DNRC also retained GCM Services Inc., to prepare a cultural inventory of the state tracts. Field work was conducted during June 2004; the final report was received November 2, 2004. This provides DNRC and interested coal companies with initial information regarding cultural resources in the area. This also would provide additional baseline data with which to engage in the actual inventory and/or mitigation process pursuant to the Land Board's February 19, 2002 settlement agreement with the Northern Cheyenne Tribe. This process would trigger when a mine plan was actually proposed.

DNRC obtained all technical data available from the Bureau of Land Management (BLM) on the acquired tracts. This data, along with the newly acquired technical and cultural data has been converted to electronic format. DNRC is able to provide all existing data, reports, documents, etc. to coal companies and interested parties on a CD or via website.

In 2006, DNRC and GNP completed a joint property resource study. This study utilized previously available data, GNP proprietary data, and the new datasets acquired by DNRC in 2004. The result was the most comprehensive analysis yet of the Otter Creek coal reserve.

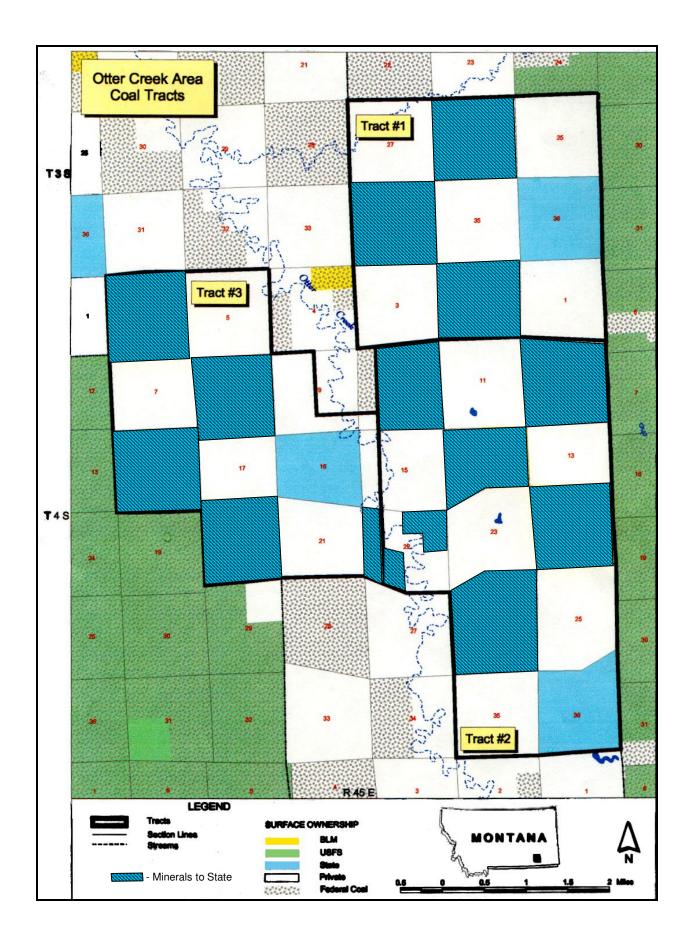
Coal Leasing Appraisal

The recently completed coal leasing appraisal is ready for distribution and solicitation of public comment as required pursuant to 77-3-312, MCA. The appraisal was prepared to determine the fair market value of the state school trust's Otter Creek coal ownership. This appraisal process is required in order to place the coal tracts up for competitive lease bid.

The appraisal was prepared pursuant to Federal Bureau of Land Management Handbook H-3070-1, Economic Evaluation of Coal Properties. The Handbook prescribes the standards and methodologies to be utilized for examination of coal properties for competitive leasing. Two major approaches are available, and both were utilized in the subject appraisal; one, consideration and analysis of comparable sales information, and two, calculation using a net present value analysis model.

The appraisal estimates the school trust could receive as much as \$1.4 billion in royalty payments over a 40 year period, and concludes a minimum up-front bonus bid of between \$0.05 and \$0.07 per recoverable ton represents fair market value. The minimum bid increases to \$0.10 per recoverable ton if independent financing is assumed for construction of the Tongue River Railroad. The total minimum up-front bonus bid would be \$37.3 million at \$0.07 per ton, and \$57.2 million at \$0.10 per ton of recoverable coal.

If the Land Board approves, the department would distribute the appraisal and solicit public comments for review. The department would anticipate returning to the Land Board in June 2009 to review comments received. The issue before the Board at that time would be whether and upon what minimum terms to offer the state's unleased coal property out for bid.



DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Trust Land Management Division

THE STATE OF THE S

BRIAN SCHWEITZER, GOVERNOR

1625 ELEVENTH AVENUE

DIRECTOR'S OFFICE (406) 444-2074 TELEFAX NUMBER (406) 444-2684 PO BOX 201601 HELENA, MONTANA 59620-1601

OTTER CREEK COAL PROPERTY APPRAISAL REQUEST FOR COMMENTS

April 21, 2009

Dear Reader:

The Montana Department of Natural Resources and Conservation appreciates your interest in the development and management of the Otter Creek school trust coal property. The attached appraisal document represents the culmination of a multi-year effort to gather and provide both technical resource and project financial information to the Land Board, interested companies and the public.

Located southeast of the town of Ashland in western Powder River County, the Otter Creek coal property contains over 1.2 billion tons recoverable coal reserves. One half of the reserve is located on what is now Montana school trust land. The other half of the coal reserve is privately owned, with the vast majority held by Great Northern Properties LP. (GNP) The ownership pattern resembles a checkerboard, with GNP and the State owning alternating sections. Both parties must participate for coal to be developed.

The state school trust originally held three sections within the Otter Creek property. However in 2002, a settlement involving the Federal government, the Northern Cheyenne Tribe and the State Land Board completed the transfer of an additional 12½ sections of federally owned coal and mineral rights to Montana's public (i.e. K-12) school educational trust. Revenues generated from management of the public school trust help fund Montana schools statewide.

The department utilized funding from the 2003 Legislature to obtain additional drill and core hole data on the state's Otter Creek ownership. This data was combined with federal and GNP data to produce the 2006 Otter Creek Property Summary Report, the most detailed analysis to date of the total coal resource. The attached appraisal document utilizes technical data from the 2006 property report and develops an estimate of fair market value of the state's ownership. State statute requires the preparation and public review of an appraisal for the Land Board's consideration prior to offering school trust coal properties out for competitive leasing. A coal appraisal serves a specific purpose – it provides the financial terms (bonus bid, rental and royalties) which together represent the full, fair market value of the property that may be offered for lease. An appraisal is not an environmental analysis. If the property were leased by the Land Board, and if the lessee submits a proposed plan for development, a detailed MT-DEQ mine permit review prepared pursuant to MEPA would be required.

This appraisal was completed according to the methods specified in the Bureau of Land Management (BLM) Handbook H-3070-1, *Economic Evaluation of Coal Properties*. The handbook provides two separate methods for determining a coal property's value, and both were utilized in this appraisal.

Appraisal standards require consideration of the costs involved in delivering coal to market. The base appraisal therefore includes the financing cost for a rail line between Otter Creek and Miles City. This produces a minimum bonus bid of \$0.065 per ton. At the department's request, the appraiser also calculated the minimum bonus bid assuming the rail line was separately financed. This increased the minimum bonus bid to \$0.10 per ton. The appraisal yields the following estimated value for the state property that may be considered for lease and development.

Minimum Bonus Payment: \$37.3 million (\$57.2 million if rail line is separately financed)

Annual Rentals (\$3/acre): \$1.0 million (over 40 years) Royalty Payments (12.5%): \$1.4 billion (over 40 years)

Additional information is available on our website at: http://dnrc.mt.gov/trust/MMB/otter_creek

Please submit comments to me in writing by May 22, 2009:

Monte Mason, Minerals Management Bureau Chief

By mail: Dept of Natural Resources and Conservation

PO Box 201601

Helena, MT 59620-1601

By fax: 406-444-2684

By email: <u>mmason@mt.gov</u>

It is anticipated the lease appraisal and comments will be considered by the Land Board at their regularly scheduled June 15, 2009 meeting.

MONTANA OTTER CREEK STATE COAL VALUATION

ENERGY, MINING, AND ENVIRONMENTAL CONSULTANTS



MONTANA OTTER CREEK STATE COAL VALUATION

Submitted to:

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

TRUST LAND MANAGEMENT DIVISION 1625 11TH AVENUE, PO BOX 201601 HELENA, MT 59620-1601

JANUARY 30, 2009

NORWEST CORPORATION

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EXECUTIVE SUMMARY

Norwest Corporation (Norwest) completed a valuation of the Otter Creek Coal Tracts 1 through 3 located in the State of Montana. The purpose is to determine the fair market value that Montana should accept from a qualified bidder. This valuation was completed according to the methods specified in the Bureau of Land Management (BLM) Handbook H-3070-1, *Economic Evaluation of Coal Properties*. The handbook provides two separate methods for determining a coal property's value. These methods are the Comparable Lease Sales Approach and the Income Approach. Research for this valuation was completed in October, 2008 and all revenue and costs reflect economic conditions at that time. The actual valuation process went through multiple reviews by Norwest and by the State of Montana prior to completion and preparation of this report on January 30, 2009.

Comparable Lease Sales Approach

The Comparable Lease Sales Approach uses similar past lease sales to determine the bonus price per ton of the coal. It is generally assumed that this approach provides the best indication of value when reliable sales data are available. The Comparable Lease Sales Approach takes past lease sale transactions and compares them to the new coal property to determine its value. Adjustments to the reference properties are made to develop a more accurate estimate of the new property. Typically these adjustments include key economic parameters such as coal quality, stripping ratio, and transportation options among others. The final per ton value is calculated by taking an average of the similar lease sales or one that is the closest in coal quality and stripping ratio to the new property and applying any adjustments for differences in these parameters.

Income Approach

Using the Income Approach, an economic model of the coal property is created. This model should emulate the most economic mine plan for the coal property which creates the highest net present value (NPV). Under the Income Approach, a mine plan based on current and projected coal markets is created. Cost and revenue streams are estimated and combined to produce a cash flow over the projected mine life. The cash flow is then discounted to present day values using a discount rate of 10%. This rate is



justified on the basis that it is representative of the alternative cost of capital and has been successfully used for a number of years in coal land valuations. The calculated NPV is then divided by the number of recoverable tons for the lease to determine the bonus price per ton.

FINDINGS

The results of the two valuation methods are discussed in detail in the body of this report and are summarized in Table E.1 below.

Table E.1 Fair Market Value of Montana Unleased Coal

	Bonus	Recoverable Tons	Total Bonus
Method	(\$/ton)	(1,000,000s)	(\$1,000,000s)
Comparable Lease			
Sales Approach	\$0.0539	572.3	\$30.8
Income Approach	\$0.0652	572.3	\$37.3

The Comparable Lease Sales Approach produced a value of \$30.8 million (M) or approximately \$0.05/ton for Montana's 572M recoverable tons of coal. This value is lower than similar federal lease sales of high sodium coal in Montana, reflecting the lack of existing rail service at Otter Creek.

The Income Approach produced a value of \$37.3M, or \$0.07/ton for 572M tons of coal. The economic model includes \$187M for an 85 mile rail line addition. There is an approved rail line proposed along this same route, owned by the Tongue River Railroad Company (TRRC), but construction has not begun, nor is Norwest aware of a set schedule for construction. Norwest has assumed that the developer of Otter Creek would pay for this railroad in the two years ahead of production and be reimbursed by TRRC over 15 years from the start of production. Because the developer would not own the railroad, the cost is not included as a capital expenditure, but rather is shown in the cash flow calculation along with recapture payments from TRRC at 4% interest. Had the railroad been in place at the time of this report, the resulting NPV would have been \$124.8M, or approximately \$0.10/ton.

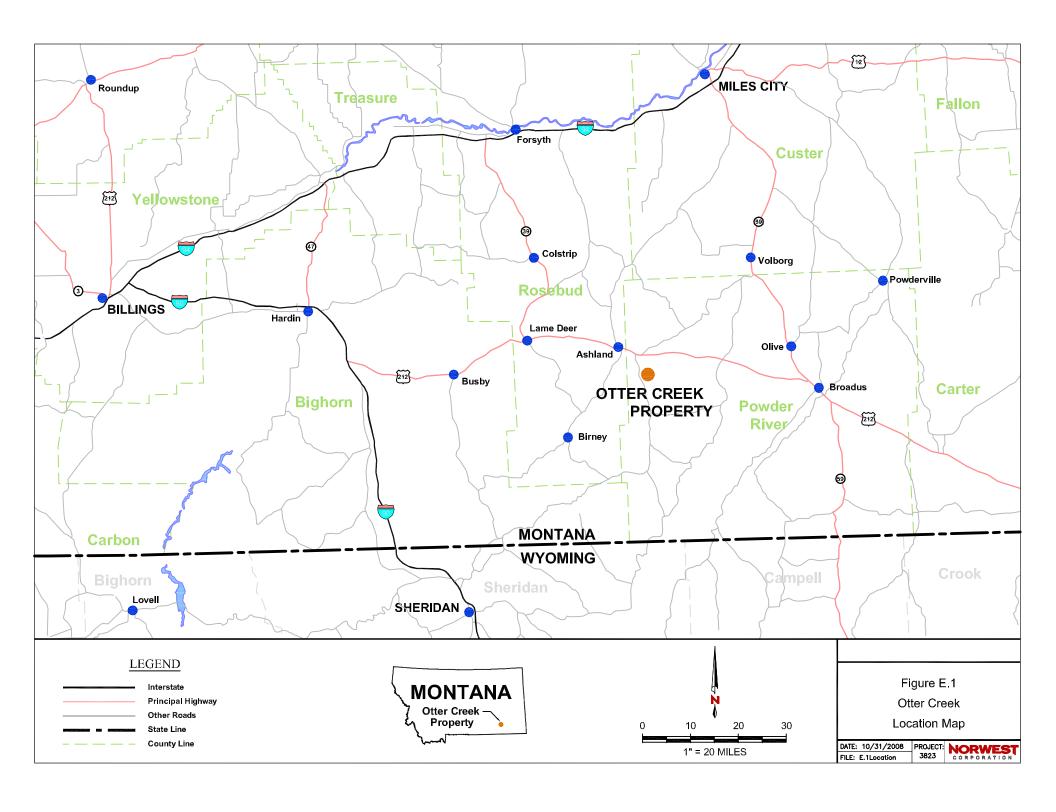
In addition to the bonus bid, Montana will receive production royalties for coal mined on these leases as well as an annual fee of \$3 per acre. The typical royalty is 12.5% of the gross sales value. On a theoretical market price of \$20/ton FOB mine, the royalty would be \$2.50/ton.



In summary, Norwest concludes that a bonus bid between \$0.05 and \$0.07/ton of recoverable coal, as determined through the Comparable Lease Sales and Income approaches, represents the fair market value range for the Otter Creek Tracts 1 through 3.

Figure E.1 shows the general location of the Otter Creek Coal Tracts. Figure E.2 illustrates the remaining lease areas.





22	23	24 X X X X X X X X X X X X X X X X X X X	19	20	21	22	23	24 R 25 R	19	20		
27	26	25	30	29	28		er Cr		30	29		
34	35	36	31	32	33	34	RACT 35	36	31	32	T3S	<u>LEGEND:</u> MT UNLEASED COAL
3	2	1	6	5	4	3	2	1	6	5	T4S	MT ALREADY LEASED COAL OTHER
10	11	12	7	BRCR	FFK	10	11	12	7	8		
13	14	13		RAGT	V/I/I/I/I	15 OT	ER C	REEK	18	17		
22	23	24	19	20	21	22	23	24	19	20		N N
27	26	25	30	29	28	27	26	25	30	29		0 2000 4000 8000 SCALE IN FEET
34	35	36	31	32	33	34	35	36	31	32		FIGURE E.2
3	2	1	6	5	4	3	2	1	6	5	T4S T5S	MONTANA DNRC OTTER CREEK LEASE TRACTS
												DATE: 9/08 PROJECT: 3823 NORWEST CORPORATION

INTRODUCTION

PROPERTY TO BE APPRAISED

The mineral property being appraised is the Otter Creek Coal Tracts 1 through 3 located in Powder River County, Montana approximately 10 miles southeast of Ashland, Montana near US Route 212. The coal tracts are bounded on three sides by the Custer National Forest. A portion of the coal property is owned by the State of Montana and is administered by the Trust Land Management Division of the Montana Department of Natural Resources & Conservation. The remainder of the coal property is owned by private parties of which Great Northern Properties Limited Partnership (GNP-LP) is the majority owner.

The tracts are located in the following townships of Powder River County:

Township 4 South, Range 45 East:

All of Section 2

All of Section 6

All of Section 8

E1/2W1/2 and the E1/2 of Section 10

All of Section 12

All of Section 14

All of Section 18

All of Section 20

W1/2W1/2; E1/2SW1/4; NW1/4NE1/4; E1/2NE1/4 of Section 22

All of Section 24

All of Section 26

Township 3 South, Range 45 East:

All of Section 26

All of Section 34

All of Section 36

PURPOSE OF APPRAISAL

The results of this appraisal will be used by the state of Montana to set a minimum bid price for Otter Creek Coal Lease Tracts 1, 2 and 3. This bid price is typically expressed in dollars per ton of recoverable coal contained in the lease area.



PREMISE OF VALUE

The premise of the valuation used by Norwest is that these coal lands will be acquired through a competitive lease sale and developed into an operating mine. This appraisal does not consider re-sale of the undeveloped leases which could result in a significantly lower value.

EFFECTIVE DATE

The effective date of this valuation is October 2008, as that is when the research was completed. Coal pricing as well as equipment prices, fuel, electricity and wages are based on information and quotations obtained at that time. This report was issued January 30, 2009 after considerable review and discussion within Norwest and between Norwest and the state of Montana.

SIGNIFICANT PROFESSIONAL ASSISTANCE PROVIDED BY OTHERS

In the course of completing this appraisal assignment, significant professional assistance was provided by Mr. Kevin Gunesch, a Norwest associate, and Mr. Gary Stubblefield of Norwest Corporation. Mr. Gunesch, a Mining Engineer, developed the financial models used in the Income Approach. Gunesch also assisted in the reporting of the Comparable Lease Sales analyses.

LIMITING CONDITIONS

Norwest has made no attempt to determine current legal ownership of the coal lands that are set forth herein, nor have we investigated as to the existence of any liens or encumbrances on these lands.

All related facts, comments and data set forth herein have been obtained from sources believed to be knowledgeable, reliable and accurate. For purposes of this report those sources include a 2005 study by Norwest on Otter Creek; 2007 Mine & Mill Equipment Costs An Estimators Guide and the 2008 Mining Cost Service.

Coal tonnage and qualities within Tracts 1 through 3 used in this appraisal were determined through the use of a geologic model of the deposit compiled using public information combined with proprietary information from GNP-LP. The 3D model was compiled using geological modeling software¹ by Carlson Software, Inc. The site of Otter Creek Coal Tracts 1 through 3 were not physically visited or inspected during the preparation of this report. These coal lands are undeveloped and thus would reveal very little information in a site visit beyond the general topography and flora and fauna.

¹ "Carlson Mining 2008", by Carlson Software, Inc.



CERTIFICATION

This report was prepared by Norwest Corporation for the Montana Department of Natural Resources & Conservation, Trust Land Management Division located at 1625 11th Avenue, Helena, MT 59620-1601. The material herein reflects our best judgment in light of the information available to us at the time of preparation. Accordingly, Norwest accepts no responsibility for decisions made or actions taken based on this report.

We HEREBY CERTIFY to the best of our knowledge and belief the following are true and accurate:

- The facts and data reported by the appraiser and used in the appraisal process are true and correct.
- The analyses, opinions, and conclusions in this appraisal report are limited only by the assumptions and limiting conditions stated in this appraisal report and our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- That no deeper coal seams would be adversely affected by the mine plan used in this study. This is in conformance with Montana Stature 77-3-305, Sub. 2.
- That we have no present or prospective interest in the property that is the subject of this appraisal report and no personal interest with respect to the parties involved.
- That we have no bias with respect to the property that is the subject of this appraisal report or to the parties involved in this assignment.
- That our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- That our compensation is not contingent on any action or event resulting from the analyses, opinions, or conclusions in this report or from its use.
- That the reported analyses, opinions, and conclusions were developed and this appraisal report was prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- That no one other than the undersigned prepared the analyses, conclusions and opinions concerning the coal lands that are set forth in this appraisal report.



• That significant professional assistance in estimating the minimum bonus price was provided by Mr. Kevin Gunesch, Norwest Associate Mining Engineer and Gary Stubblefield, Vice President Norwest.

Signed

John E. Trygstad

Candidate Member, American Society of Appraisers

Gary M. Stubblefield, P.E.

Vice President, Norwest Corporation

Kevin Gunesch, P.E.

Associate Mining Engineer, Norwest Corporation



COMPARABLE LEASE SALES APPROACH

INTRODUCTION

The Comparable Lease Sales Approach examines the prices paid for similar coal properties in the area to determine the fair market value (FMV) of the new lease. It is generally assumed that the Comparable Lease Sales Approach provides the best indication of value when reliable sales data are available. The basis for this estimation is the value the competitive market would determine for a property given that:

- Prices are determined in a competitive market.
- Prices result from the negotiation between a knowledgeable buyer and seller.
- Neither the buyer nor seller is under any undue pressure to complete the transaction.
- Variations in the appraisal property and the comparable properties can be accounted for by a technically based monetary adjustment.

The following sections give an overview of Comparable Lease Sales within the last 10 years. These lease sales are discussed in terms of the bonus paid, bonus per ton of recoverable coal, coal quality, strip ratio, proximity to transportation, and geologic and mine method comparability to the appraisal property. A bonus bid price per recoverable ton amount for the entire Otter Creek property is determined based on these comparisons. This unit value is then multiplied by the recoverable tonnage of Montana state coal within Otter Creek Tracts 1 through 3 to determine the dollar value.

SELECTED COMPARABLE LEASES

A database consisting of 31 federal lease sales was compiled by Norwest for the Powder River Basin (PRB) area (see Table 2.1). These sales included 12 lease modifications (MOD) and 19 lease by application (LBA) sales. The MOD sales are modifications of current leases that add a small incremental tonnage to an existing lease. These small sales are not considered as competitive sales since they are inherently attached to a current lease and mining operation and not an openly competitive sale. A quick review of the MOD sales indicates that bonus bids on these leases were typically in the range of \$0.04/ton to \$0.05/ton, while bonus bids on LBAs ranged from \$0.11/ton up to \$0.97/ton.



TABLE 2.1 FEDERAL COAL LEASE SALES- POWDER RIVER BASIN, MONTANA AND WYOMING (from 1991) 10:30/08 HIGH BLM CASE SAL TRACT APPLICANT BIDDER SERIAL NO. TYPE DAA	SE SALES- POWDER I	RIVER BASIN, MONT. HIGH BIDDER	ANA AND WY OM BLM SERIAL NO.	CASE	SALE DATE	TOTAL BONUS	TRACT ACRES	BONUS (\$/ACRE)	TONS RECOV. (MMT)	BONUS (\$/TON)	MINING RATIO (BCY:TON)	HEAT VALUE (BTU/LB)	% S%	% Ash %	% Moist. '9	Na as % Ash
			OPONO NATAK	4	EGGG/PEA	000 000		or your	20001	0010	000	1000	200	000	11.20	000
Spring Creek Decker Modifications	Spring Creek Coal Decker Coal Co.	Spring Creek Coar Decker Coal Co.	MTM037604/	MOD	4/11/2007	\$19,902,200	100.4	\$4,545.02	108.00	\$0.0920	2.76	9,551	61		24.16	8.38
West Roundup	Triton Coal	Peabody Energy	MTM057934 WYW151134	LBA	2/16/2005	\$317,697,610	2,812.51	\$112,958.75	327.186 *	\$0.9710	4.30	8.790	0.20	na	na	1.60
West Antelope	Antelope Coal	Antelope Coal	WYW151643	LBA	12/15/2004	\$146,311,000	2,809.13	\$52,084.10	194.961 *	\$0.7505	3.00	8,858	0.23	na	na	1.86
West Hay Creek	Triton Coal	Kiewit Mining Group WYW151634	WYW151634	LBA	11/17/2004	\$42,809,400	921.16	\$46,473.49	142.698 *	\$0.3000	2.00	8,346	0.28	na	na	1.75
Little Thunder	Ark Land Co.	Ark Land Co.	WYW150318	LBA	9/22/2004	\$610,999,950	5,083.50	\$120,192.77	718.719 *	\$0.8501	3.40	8,884	0.24	na	na	1.20
NARO South	Powder River Coal	Powder River Coal	WYW154001	LBA	6/29/2004	\$274,000,000	2956.725	\$92,670.10	297.469 *	\$0.9211	2.80	8,929	0.20	na	na	2.00
Rosebud	Western Energy	Western Energy	MTM80697	Mod	2/17/2004	\$11,250	30.0	\$375.00	0.250	\$0.0450	4.63	8,382	0.81	10.3	25.41	0.5
N. Jacob's Ranch	Jacob's Ranch Coal	Jacob's Ranch Coal	WYW146744	LBA	1/16/2002	\$379,504,652	4,982.2	\$76,171.49	537.542 *	\$0.7060	3.51	8,792	0.45 5	5.46	27.40	1.29
Spring Creek	Kennecott	Kennecott	MTM88405	LBA	11/27/2000	\$1,740,200	150.0	\$11,601.33	15.860	\$0.1097	2.08	9,370	0.34 3	3.65	25.53	8.63
Horse Creek	Antelope Coal	Antelope Coal	WYW141435	LBA	9/7/2000	\$91,220,121	2,818.7	\$32,362.54	275.577 *	\$0.3310	2.60	8,890	0.22 4	4.28	26.83	1.49
Spring Creek	Kennecott	Kennecott	MTM69782	MOD	10/1/1999	\$13,860	10.0	\$1,386.00	0.330	\$0.0420	1.92	9,361	0.41 3	3.91	25.51	9:26
Rosebud	Western Energy	Western Energy	MTM80697	LBA	6/16/1999	\$4,416,000	1,401.0	\$3,152.03	27.600	\$0.1600	3.51	8,382	0.81	10.3	25.41	10.3
Thundercloud	Кеп-McGee	Ark Land Co.	WYW136458	LBA	10/1/1998	\$158,000,009	3,545.5	\$44,563.50	412.000 *	\$0.3835	2.57	8,810	0.34 4	4.48	27.93	1.45
Powder River	Peabody	Peabody	WYW136142	LBA	8/30/1998	\$109,596,500	4,224.2	\$25,944.91	532.024 *	\$0.2060	3.00	8,742	0.19 4	4.21	27.93	1.84
Decker	Kennecott	Kennecott	MTM57934-A/	MOD	8/10/1998	\$478,400	320.0	\$1,495.00	7.360	\$0.0650	2.35	9,512	0.42 4	4.35	24.16	1.27
			MTM61685													
Spring Creek	Kennecott	Kennecott	MTM69782	MOD	4/10/1998	\$163,170	25.0	\$6,526.80	3.366	\$0.0485	1.48	9,350	0.35	3.70	25.51	8.72
N. Rochelle	Bluegrass Coal	Bluegrass Coal	WYW127221	LBA	9/25/1997	\$30,576,340	1,481.9	\$20,632.78	157.610 *	\$0.1940	2.91	8,680	0.23 4	4.91	na	na
Antelope	Kennecott	Kennecott	WYW128322	LBA	12/4/1996	\$9,054,600	617.2	\$14,670.45	60.364	\$0.1500	1.70	8,776	0.23 4		25.70	1.21
Spring Creek	Kennecott	Kennecott	MTM69782	MOD	6/16/1995	\$166,000	0.09	\$2,766.67	4.380	\$0.0379	1.88	9,357		3.71	na	na
Eagle Butte	Cyprus-Amax	Cyprus-Amax	WYW124783	LBA	4/5/1995	\$18,470,400	1,059.2	\$17,438.40	163.300	\$0.1131	1.99	8,376	0.22 4	4.60	25.51	8.72
Spring Creek	Kennecott	Kennecott	MTM69782	MOD	11/23/1994	\$19,509	15.0	\$1,300.60	0.465	\$0.0420	1.67	9,237	0.33 4	4.15	na	na
Caballo	Exxon	Exxon	WYW125698	MOD	2/2/1994	\$25,217	20.2	\$1,246.82	0.917	\$0.0275	1.76	8,500	0.38 5	5.05	na	na
Spring Creek	NERCO	NERCO	MTM69782	MOD	661/1/6	\$1,000	10.0	\$100.00	0.020	\$0.0500	2.10	8,183	0.55	9.10	na	na
Scoria Bay	Thunder Basin	Thunder Basin	WYW2313	MOD	5/30/1993	\$64,000	10.2	\$6,268.36	1.030	\$0.0621	1.43	8,752	0.39 5	5.35	na	na
West Rocky Butte	Peabody	Peabody	WYW122586	LBA	1/7/1993	16,500,000	463.2	\$35,621.76	56.700	\$0.2910	3.75	8,354	0.27 4	4.30	na	na
N. Antelope	Peabody	Peabody	WYW119554	LBA	9/28/1992	\$86,987,765	3,064.0	\$28,389.89	403.500	\$0.2156	2.23	8,752	0.27 4	4.30	na	na
W. Black Thunder	Thunder Basin	Thunder Basin	WYW118907	LBA	8/12/1992	\$71,909,282	3,492.5	\$20,589.69	429.000	\$0.1676	2.72	8,839	0.25 4	4.40	na	na
Jacobs Ranch	Кеп-МсGее	Kerr-McGee	WYW117924	LBA	9/26/1991	\$20,114,930	1,708.6	\$11,772.62	147.424	\$0.1364	2.46	8,540	0.47 5	5.40	na	na
E.Black Thunder	Thunder Basin	Thunder Basin	WYW2313	MOD	4/29/1991	\$300,155	102.8	\$2,920.93	5.000	\$0.0600	0.70	8,508	0.32 4	4.98	na	na
West Decker	Kiewit	Kiewit	MTM37604	MOD	1/1/1991	\$494,650	160.0	\$3,091.56	7.610	\$0.0650	4.20	9,610	0.35 3	3.85	na	na

* Reserves expressed as TONS MINABLE
MOD-Lesse Modification
LBA-Lesse By Application

The significantly higher bonus bids for LBA sales reflect higher interest and importance placed on these typically larger tracts. The highest bids occurred more recently on coal lease sales in the lower PRB (Wyoming) where two or more companies with neighboring mines competed for large tonnage lease tracts. Because of the obvious difference between bid amounts on LBA sales compared to MOD sales and the fact that Otter Creek is not adjacent to existing mines, Norwest did not consider MOD sales further in this analysis.

Of the remaining 19 LBA sales a total of three leases were selected for further analysis. These sales represent all Montana LBA sales completed in the area since 1999. Table 2.2, below, illustrates the selected LBA sales with their respective parameters of coal quality and strip ratios which are key contributors in determining mining cost and marketability of the coal from a particular property.

Table 2.2 Selected LBA Sales

Tract	Sale Date	Number of bidders	BLM Serial No.	Case Type	Total Bonus	Tract Acres	Bonus (\$/Acre)	Recoverabl e Tons (million)
Spring								
Creek 1	4/17/2007	1	MTM 94378	LBA	\$19,902,200	1,117.7	\$17,806.39	108.60
Spring								
Creek 2	11/27/2000	1	MTM 88405	LBA	\$1,740,200	921.2	\$46,473.49	142.698
Rosebud	6/16/1999	1	MTM 80697	LBA	\$4,416,000	1,401.0	\$3,152.03	27.600

Tract	Sale Date	Bonus (\$/ton)	Strip Ratio (BCY/ton)	Heating Value (Btu/lb)	% Sulfur	% Ash	% Moisture	Na as % Ash
Spring								
Creek 1	4/17/2007	\$0.1833	2.89	9,331	0.35	3.80	25.71	8.38
Spring								
Creek 2	11/27/2000	\$0.1097	2.08	9,370	0.34	3.65	25.53	8.63
Rosebud	6/16/1999	\$0.1600	3.51	8,382	0.81	10.3	25.41	10.3

The common thread among these three leases is the high sodium content when compared to other LBAs included in Table 2.1. These other LBAs reach a maximum sodium content of 2%. High sodium coals face a limited market because of the slagging problems they cause in most electric generating plant boilers.

Heat content, expressed as Btu/lb of coal, does not show a strong correlation to the LBA bid price, but is important in selling coal because most electric utilities buy Btus rather than tons.



Ash and sulfur are higher in the Rosebud lease than in either of the Spring Creek leases, but as will be established later in this report, these attributes do not impact the bid price significantly.

MAJOR INFLUENCE FACTORS

Geology

Each tract contained in Table 2.1 is within the PRB which extends from northern Wyoming into Montana. The coal deposits within the PRB exhibit similar geologic conditions with a low number of thick coal seams covered by a minimal amount of overburden resulting in low overburden volume to coal tons, referred to as strip ratio. Coal mines in the PRB employ a strip mining method, usually with a combination of draglines and truck shovel fleets for overburden and coal removal.

Coal Quality

All coal within the region is classified as sub-bituminous with heating values between 8,300 Btu and 9,500 Btu/lb, as-received. Coal quality differs somewhat between the southern PRB (Wyoming) and the northern PRB (Montana). Heating values in the Northern PRB are typically above 9,300 Btu/lb, while the lower PRB coals fall below 8,800 Btu/lb. An exception is the Rosebud Mine in Montana with a heating value of about 8,400 Btu/lb. Coal sales contracts typically purchase Btus rather than tons so heat content must be considered in determining bid values. This can be done by comparing Otter Creek heat content to that of the selected comparison mines and adjusting for the difference.

Nearly all mines in the PRB have low (under 0.5%) sulfur content and are considered Compliance Coal (they produce less than 1.2 lbs of sulfur dioxide (SO₂) per million Btu when burned in a utility boiler). Here again, Rosebud is an exception at 0.8% sulfur or 1.93 lbs SO₂ per million Btu. Otter Creek sulfur content at 0.28% is in the same range as Spring Creek and thus will not significantly influence this valuation.

An important difference in coal quality among PRB coals is the weight percent of sodium contained in the ash. Coals with high sodium content share a limited market due to slagging problems they cause in certain types of power plant boilers. This limits the market for high sodium coals to a small number of mid-western electric generating plants and some industrial plants. LBA tracts in Table 2.1 with high sodium content include Spring Creek at 8 to 9%, Eagle Butte at 8.72% and Rosebud at 10.3%. These tracts



received lower unit bonus bids than most of the other LBA tracts. Charts 2.1 through 2.3 are scatter plots comparing bid price to quality parameters, including heat content, sulfur and sodium in ash. There is no clear pattern in Charts 2.1 and 2.2, indicating that bid price is not tied strongly to heat content or sulfur percent. There is however, a relationship of bid price to sodium in ash. It is clear from Chart 2.3 that the high sodium LBAs are grouped in the lower price range (\$0.11 - \$0.19); whereas the other lease sales with low sodium levels had bid prices in a wide range, i.e. from \$0.15/ton up to \$0.97/ton. This reflects the limited market for high sodium coal.

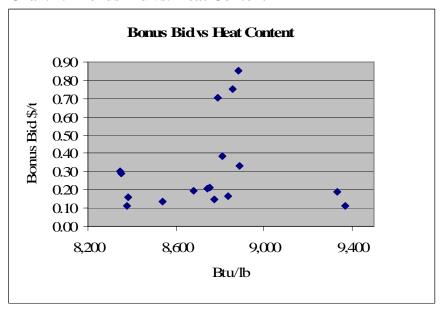


Chart 2.1 Bonus Bid vs. Heat Content



Chart 2.2 Bonus Bid vs. Sulfur Content

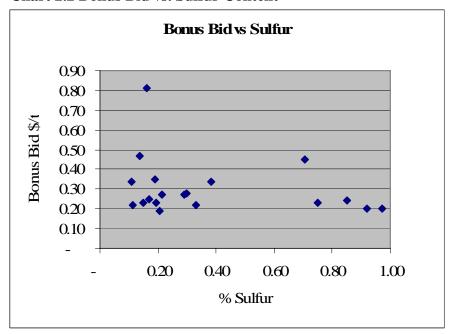
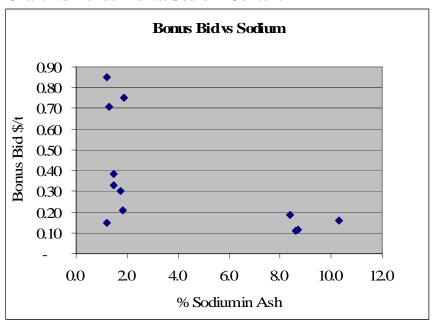


Chart 2.3 Bonus Bid vs. Sodium Content



Bonus Bidys Strip Ratio 0.90 0.80 0.70 Bonus Bid \$/t 0.60 0.50 0.40 0.30 0.20 0.10 1.50 2.00 2.50 3.00 3.50 4.00 4.50 Strip Ratio Cyds/ton

Chart 2.4 Bonus Bid vs. Strip Ratio

Market Prices

It seems reasonable that market prices would influence the LBA bid price. The three Montana coal tracts listed in Table 2.2 sold in 1999, 2000 and 2007 respectively. The average coal prices for PRB coals during those specific years are shown in Table 2.3 below.

Table 2.3 Market Prices (\$/Ton)² vs Bonus Bid

	1999	2000	2007
Average Montana Coal Prices*	\$8.82	\$8.87	\$11.79
%Change		0.6	32.9
LBA Bid Amounts \$/ton	\$0.1883	\$0.1097	\$0.1600
%Change		-41.7	45.9

^{*} These are nominal dollars, i.e. actual \$ paid in the given year

There does not appear to be a connection between the LBA bid amount and the average coal price in Montana during the specific years. In the period 1999 to 2000 average coal prices in Montana climbed less than 1%, yet bid prices dropped nearly 42%. Between years 2000 and 2007, average Montana coal price increased 33%; however the LBA bid price jumped almost 46%.

² Energy Information Administration/Coal Industry Annual 2000 and 2007.



Strip Ratio

Strip ratio, sometimes referred to as mining ratio, is a measure of the volume (cubic yards) of waste rock moved in order to recover one ton of coal. Typically, the higher the strip ratio, the greater the mining cost. Strip ratios for the selected sales vary from 2.0 bank cubic yards (BCY)/ton to 4.3 BCY/ton. One would expect that the unit bonus bid would vary inversely in proportion to strip ratio; however, this was not the case. In fact, the highest strip ratio tract, West Roundup, received the highest unit bonus bid at \$0.9710/ton. This contradiction may be explained by the fact that there were two bidders competing for that tract which created a highly competitive bidding process between the two parties (Arch Coal Company and Peabody Energy). In this particular case, the initial bid by Arch Coal Company was rejected, and then followed by re-offer bids from both parties (Bureau of Land Management, 2008). Chart 2.4 shows no distinctive trend with regard to strip ratio affecting LBA bid price.

Proximity to Transportation

Both Spring Creek and Rosebud mines have had rail service from their startup, whereas Otter Creek will have to fund construction of approximately 85 miles of main line to Miles City, MT. This is a significant cost (estimated at roughly \$187M) and even though Norwest assumes the cost will be recovered over time, this negatively impacts the value of Otter Creek coal.

COMPARABLE SALES VALUATION

Sodium Adjustment

Sodium content appears to be a primary factor influencing LBA bid prices in the Northern PRB. In recognition of this, Norwest has adjusted the actual bids on the Spring Creek and Rosebud leases to reflect the sodium content in Otter Creek coals. The Otter Creek tracts are characterized by sodium in ash content of 7.51%, which is only slightly lower than Spring Creek tracts at 8.38% and 8.63% respectively and well below the Rosebud tract (10.3% Na). This high sodium content will limit the market for Otter Creek coal as it does for coals produced at Spring Creek and Rosebud mines.

Table 2.4 Coal Quality Comparisons (As Received Basis)

Tract	Heating Value (Btu/lb)	% Sulfur	% Ash	% Moisture	Na as % Ash
Otter Creek	8,609	0.28	5.50	27.89	7.51
Spring Creek 1	9,331	0.35	3.80	25.71	8.38
Spring Creek 2	9,370	0.34	3.65	25.53	8.63
Rosebud	8.382	0.81	10.3	25.41	10.3



Spring Creek 1 (Tract MTM 94378) is the most recent sale (2007) and contains similar coal qualities as Otter Creek coal with regards to sulfur, ash, moisture, and most notably sodium. The bid price for this tract was \$0.1883/ton. If we adjust this bid amount on a straight line basis to reflect a sodium content of 7.51%, as in Otter Creek coal, we get a bid price of \$0.2045/ton (8.38 / 7.51x \$0.1883). In a similar manner, the bid price adjustment based on Spring Creek 2 (Tract MTM 88405, 2000) produces a theoretical bid price of \$0.1261/ton. Finally, adjusting the bid price of the Rosebud tract to match the sodium level at Otter Creek produces a theoretical bid of \$0.2194. The average of these three theoretical bid amounts is \$0.1833/ton which is coincidentally the same as the actual bid on the 2007 Spring Creek 1 LBA.

Btu Adjustment

The \$0.1833/ton value must further be adjusted for Btu content since most sales contracts call for a quantity of Btu rather than tons. Applying a Btu adjustment to the three comparison LBAs reduces the Otter Creek bid amount to \$0.1766/ton (see Table 2.5).

Transportation Adjustment

An adjustment to recognize that these three lease sales were associated with properties that already had access to rail transportation is necessary. Since the length of rail line required at these mines is unknown, the cost estimate for the rail line needed at Otter Creek was used to adjust the three lease sales. This was accomplished by dividing that cost by the total tons of recoverable coal at Otter Creek. This calculates to \$0.1429/ton (\$187M/1,308.6Mtons). This transportation adjustment was further reduced separately for each lease by discounting at a 2.5 percent *annual* rate over the time difference in months between the three lease sales and October, 2008. The resulting adjustments, shown in Table 2.5, average \$0.1227/ton and the final adjusted values averages \$0.0539 per ton.

Table 2.5 Bonus Bid Adjustments

Lease	Lease Sale Date	Bid Price	Na as % Ash	Adjust Bid to 7.51 % Na	Heat Content Btu/lb	Addtn'l Adjust. for Btu	Adjust for No Railroad	Final Adjusted Value
Spring Creek 1	4/17/2007	\$0.1833	8.38	\$0.2045	9,331	\$0.1887	-\$0.1376	\$0.0511
Spring Creek 2	11/27/2000	\$0.1097	8.63	\$0.1261	9,370	\$0.1158	-\$0.1173	-\$0.0015
Rosebud	6/16/1999	\$0.1600	10.3	\$0.2194	8,382	\$0.2254	-\$0.1132	\$0.1122
Otter Creek			7.51	\$0.1833	8,609	\$0.1766	-\$0.1227	\$0.0539

Notes: Otter Creek adjustments are arithmetic averages of the three federal sales.



Summary of Adjustments

Bonus bids on three federal coal lease sales in Montana were adjusted to match Otter Creek coal Btu and Sodium qualities and for rail service as follows:

- First, the adjustment for sodium at Spring Creek 1 is calculated by dividing its sodium value (8.38) by the sodium value at Otter Creek 1 (7.51), then multiplying the result by \$0.1833/ton which yields an adjusted value of \$0.2045/ton. The same calculation applies to Spring Creek 2 and Rosebud sales. The average of these three bids, adjusted for sodium is \$0.1883/ton.
- Next, the adjustment for heat content (Btu/lb) is applied in a similar fashion, but now to the sodium adjusted values and this yields an average bid price for Otter Creek coal of \$0.1766/ton.
- Finally, the three comparable lease bids were adjusted downward to recognize that they had rail service at the time of the bid while Otter Creek does not. This was accomplished by discounting (\$0.1429/ton) downward to account for time differences between the lease dates of the comparable leases and October, 2008; then deducting these results from the adjusted Btu value on each lease. This gives a final average bid price of \$0.0539/ton.
- Multiplying this unit bonus bid amount by the recoverable unleased Montana State coal contained within the three Otter Creek Tracts (572.3Mtons) yields a total value under the Comparable Sales approach of \$30.8M.



INCOME APPROACH

GENERAL

The value of the remaining Montana state coal leases within the Otter Creek Tracts 1 through 3 was also determined through the Income Approach. This approach involves preparing a discounted cash flow analysis by estimating the annual costs and revenues associated with the development of the coal leases under realistic conditions. The cash flow is discounted to the net present value (NPV) by applying a reasonable discount rate. The discount rate chosen for this analysis is 10% which matches the rate currently used by the U.S. Department of Interior's Bureau of Land Management (BLM)³. The following sections describe the assumptions and methodologies used to calculate the NPV for the remaining coal leases with the Otter Creek Tracts.

GEOLOGIC MODEL

The coal tonnage and qualities within the Otter Creek Tracts 1 through 3 were determined through the use of a geologic model of the deposit compiled using public information and proprietary information provided by GNP-LP. The combination of the geologic data from both sources has produced the most definitive model of the Otter Creek deposit to date. This 3D computer model, prepared using Carlson Mining software, was used to determine the in-place coal tonnages and qualities used in the analyses.

LOGICAL MINING UNITS (LMUS)

Four logical mining units (LMUs) were indentified in the 2005 Norwest study, which included Montana coal plus federal and private coal parcels. To simplify the valuation process, the two LMUs located on each side of Otter Creek were combined to form logical mining units, LMU 5 on the east side and LMU 6 on the west side. Economic models were created for each of these new LMUs assuming a greenfield surface mining development scenario for each. As discussed further in the text, the predicted coal market will absorb simultaneous coal production from both LMUs. Therefore, the NPVs from each model are combined to produce a single value for the entire coal property.

³ "H-3070-1 – Economic Evaluation of Coal Properties", U.S. Department of the Interior, BLM. Retrieved October 27, 2008 from http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html.



ECONOMIC MODELS

The economic models for both LMUs (located in Appendix C) are identical in structure, i.e. calculating revenue and cost cash flows in the same manner. The only differences between the models are:

- Mining Rate (LMU5 = 21.2Mtpa, LMU6 = 12Mtpa)
- Capital Equipment Assumptions (which vary based on the mining and stripping requirements).

All other cost assumptions and methodologies in determining costs are the same throughout each model.

PRODUCTION SCHEDULE

The production schedule was adjusted to reflect a total of 5,500 net operating hours per year for major mobile equipment excluding the draglines which operate 6,000 hours per year. These annual operating hours are based on the following assumptions:

- 12 hour shifts
- 2 shift per day
- 7 days per week
- 50 weeks per year (allows for annual outage of 2 weeks)
- 80% availability
- 92% shift efficiency (15 min start up and shut down, 30 min lunch, effective work 11 of 12 hours per shift)
- 12% operating delays.

CAPITAL COSTS

Since the results of each separate model are combined into a single value, the capital for infrastructure as well as working capital, permitting, and exploration drilling is split equally between the separate models.

Equipment

The capital assumptions for each LMU were verified for major mobile equipment from the 2005 study. Capital equipment numbers and sizes for draglines, overburden shovels, and ancillary/support equipment were kept the same. Changes were made to the number of overburden trucks and to the coal loading/hauling fleets. The list below summarizes the assumptions used to verify the capital equipment numbers.

- Draglines were sized based on the annual stripping requirement and a productivity of 275,000 BCY/year/CY of bucket capacity.
- Overburden and coal trucks were sized based on truck match with the loading equipment.



- Overburden shovels were sized based on stripping volumes.
- Coal shovels were replaced with large wheel loaders which
 provide both economic models with a reduced capital cost since
 wheel loaders, being more mobile than shovels, are not
 constrained to a specific mine. This reduced the number of coal
 loading equipment in each LMU by one.
- Coal trucks were changed from 320-ton trucks to 240-ton trucks to match the loading height and bucket size of the wheel loader.
- Overburden and coal truck numbers were changed to reflect updated productivities and truck match with the coal loader.
- For each type of truck, a generic haul route was created using the geologic model and the pit layout and these routes were used to generate the updated productivity numbers using Caterpillar's fleet production calculation (FPC) software program. Appendix A contains the detailed FPC calculations and haul routes.

The calculated overburden truck productivity of 478 BCY/Operating Hour was based on the following haul parameters.

- One-way distance of 10,600 ft.
- 50 ft. elevation gain at an 8% grade
- 0% grade on the remaining length of haul
- Two 90° turns
- 4% rolling resistance.

The calculated coal truck productivity of 495 Tons/Operator Hour was based on the following haul parameters.

- One-way distance of 20,000 ft.
- 300 ft. (average overburden plus coal thickness) elevation gain at 8% grade
- 0% grade on the remaining length of haul
- Thee 90° turns
- 4% rolling resistance.

The updated productivities reduced the number of overburden trucks by two in LMU5 and one in LMU6 while coal trucks were reduced by four in LMU5 and three in LMU6.

The capital cost and the hourly operating cost for each piece of mobile equipment was taken from "Mine and Mill Equipment Costs" for 2007⁴

⁴ "Mine And Mill Equipment Costs – An Estimator's Cost Guide", 2007, InfoMine USA, Inc., Spokane Valley WA.



and then inflated 10% to estimate the 2008 costs, except for draglines which are based on manufacturer quotes. This 10% inflation is an approximation to account for steep increases in diesel fuel, lubricants and replacement parts during the past year. In addition, a 7% increase was added to haul trucks for initial tires due to a worldwide shortage of large truck tires. Finally 5% was added to shovels and draglines for delivery and/or erection costs.

Summary tables of all capital for each model are shown below.

Table 3.1 LMU5 Equipment Capital Summary

Equipment	Number	Cost (\$1,000,000s)
110 cyd -Dragline	3	449.0
30 cyd - Rock-Shovel	2	19.6
240-ton OB Trucks	10	35.4
R.T. Dozers	3	2.8
Dozers (D11)	4	7.5
Water Trucks	3	2.6
Motor Graders	3	5.7
OB-Coal Drills	3	9.4
Coal Wheel Loaders	2	11.8
240-ton Coal Trucks	10	35.4
Reclamation Scrapers	4	7.4
Reclamation Dozers (D11)	2	3.8
Miscellaneous Equipment	NA	0.8
Total	NA	591.2

Table 3.2 LMU6 Equipment Capital Summary

Equipment	Number	Cost (\$1,000,000s)
70 cyd - Dragline	2	240.0
30 cyd - Rock-Shovel	1	9.8
240 ton – OB Trucks	5	17.7
R.T. Dozers	2	1.9
Dozers (D11)	4	7.5
Water Trucks	3	2.6
Motor Graders	3	5.7
OB-Coal Drills	2	6.2
Coal Wheel Loaders	1	5.9
240-ton Coal Trucks	5	17.7
Reclamation Scrapers	2	3.7
Reclamation Dozers (D11)	1	1.9
Miscellaneous Equipment	NA	0.8
Total	NA	321.4

Equipment Replacement

Replacement of trucks, wheel loaders, and ancillary equipment occurs every 10 years in each model with replacement of all shovels every 20



years. Draglines are assumed to be life of mine assets with major repairs consisting of roller replacements at 10 year intervals and tub plus roller replacements at 20 year intervals. The total equipment replacement capital estimate is \$649.2M.

Facilities

Mine facilities including office, maintenance shop, warehouse, equipment wash bay, employee change/shower room, potable water system, etc. are required in the initial stages of the mine. The capital estimate for these facilities is \$29M. This scaled figure is taken from the 2005 Norwest report for an annual tonnage of 33.2Mtons. The 2005 estimates were based on experience from similar sized mining projects studied by Norwest. Since this is a shared facility, \$14.5M was added to each economic model.

Coal Processing Plant

Mined coal will be hauled by large end-dump trucks to a coal processing plant. Here the coal will be dumped into steel hoppers and fed via an apron feeder to a primary crusher. Crushed coal then flows onto a conveyor belt to a secondary crushing and sampling system where it is further reduced in size to approximately two inches. This coal can be sent directly to large (~15,000 ton capacity) storage and blending silos or sent directly to a weigh bin and loaded into a unit train. The capital cost of this coal handling plant is estimated at \$70M which is based on previous cost studies performed by Norwest scaled to an annual tonnage of 33.2Mtons. This is also a shared facility and was split equally between each economic model at \$35M.

Rail Line to Miles City, MT

The closest main rail line to Otter Creek passes through Miles City, MT located about 85 miles from the proposed mine. There is an approved rail line, the Tongue River Railroad, which if built would pass within about six miles of Otter Creek. There is no specific time frame for constructing this railroad. Valuation rules require the evaluator to consider only those improvements that are already in place and not speculate on proposed additions. As such, the cost of the entire rail line to Miles City must be included along with a rail spur and loading loop at the mine location. The impact is significant as the estimate for the rail line only (not including the six mile spur or loading loop) is \$187M. This cost was split equally between each economic model. Norwest assumes that Tongue River Railroad Company (TRRC) will own the main line and therefore be responsible for maintenance and property taxes.



Norwest further assumes that the developer must pay for the railroad up front, but will recover the cost with 4% annual compounded interest over the first 15 years of production. The upfront cost of the railroad is included in the cash flow calculation, but not in the capital expenditures. Likewise the recapture is included in the cash flow, but not in the income.

Had the Tongue River railroad been in place, front-end cash outflow would be reduced in years -2 and -1 resulting in a higher NPV of \$124.8M or \$0.10/ton of recoverable coal.

Working Capital

Working capital is money that is typically committed at the front end of a new project to cover operating costs for the first three months to a year. Working capital may vary over the life of the project and is recovered at the end of the project. For this study, working capital is set at \$12.5M, or about equal to three months of controllable cash costs. This shared cost is split equally between each economic model.

Permitting and Exploration Drilling

Capital costs for permitting and exploration drilling were added to each model with the total cost split equally among each model. Capital for permitting is estimated at \$5M with exploration drilling at \$3M

Total Capital

Adding equipment, facilities, coal handling plant, rail spur and loading loop, working capital, and permitting and exploration drilling gives a total estimated capital expenditure required for the project of \$1,711M (see Table 3.3). This capital will support a total production level of about 30Mtpa.

Table 3.3 Total Capital (Mine, Facilities, Plant, Rail Loop & Working Capital)

Capital Category	Cost (\$1,000,000s)
Mine Equipment (initial plus replacement)	1,566.9
Mine Facilities	29.0
Coal Plant	70.0
Rail Spur (6 mi.) & Loading Loop	24.6
Working Capital	12.5
Permitting and Exploration Drilling	8.0
Total Capital Required Over The Mine Life	1711.0



EQUIPMENT OPERATING COSTS

Mobile equipment hourly operating costs were estimated using Mine and Mill Equipment Costs guide. These costs were adjusted to reflect the following locally estimated costs.

- Diesel cost of \$3.63 per gallon
- Electricity cost of \$0.067 per kWh
- Lube cost of \$9 per gallon.

The plant operating cost from the previous model was adjusted to 2008 using the Mining Cost Service - Mill Cost Index⁵.

The productivity levels for each dragline were based on stripping 275,000 BCY/year/CY of bucket capacity, resulting in annual productivities of 19MBCY and 30MBCY for the 70cy and 110cy draglines respectively.

Productivity levels for shovels, loaders and trucks were adjusted to reflect updated productivities based on the following loading assumptions.

- Bucket cycle time of 0.5 min
- 85% loading/operator efficiency
- 15% swell factor
- 90% bucket fill factor
- 5,500 net operating hours per year.

The above assumptions resulted in an annual productivity of 13MBCY for the 30cy overburden shovel and 17Mtons for the 41cy coal wheel loader. Due to the overall tonnage requirements and match with truck fleet size, the wheel loader productivity was reduced to match the productivity of the five-truck coal fleet or 13.6Mtons annually.

The equipment hourly operating costs were combined with the productivity assumptions to generate unit costs for each piece of equipment or fleet. A summary table of equipment unit costs is shown below. The fleet cost for overburden and coal movement, support equipment, and reclamation are combined into a single unit cost.

⁵ "Mining Cost Service", InfoMine USA, Inc., Spokane Valley WA, 99206



Table 3.4 Equipment Unit Cost Summary

Equipment	\$/Unit	Units
OB Removal Dragline	0.23	BCY
OB Truck – Shovel	0.71	BCY
Coal Loading – Haulage	0.76	TON
Other Support Equipment	0.48^{1}	TON
Coal Handling Plant	0.19	TON
Reclamation	0.33^{1}	TON

¹ Average values for LMUs 5&6.

OTHER CONTROLLABLE UNIT COSTS

Other unit costs include labor, explosives, and other supplies and services.

Labor

A labor unit cost was estimated using the 2007 labor cost data from Mining Cost Service and ton per man-hour data from the Mine Safety and Health Administration (MSHA) for the Decker, Absaloka, and Spring Creek mines for the period 2000 through 2007. This cost was escalated to reflect current 2008 labor costs.

The published average hourly wage in the Mining Cost Service for Montana union employees is \$24.62. The average hourly wage for salaried employees is \$41.11 based on an annual salary of \$85,000 and 2,080 working hours per hear. This is based on a breakout of 15% top management at \$135,000/year, 40% senior management at \$90,000/year, and 45% mid/entry level at \$65,000/year. Benefits were added as a percentage of hourly wages; 55% was added for union employees while 45% was added for salary employees. A weighted average between union and salary employees was taken based on 443 union employees and 95 salary employees (scaled breakout based on Mining Cost Service data). This weighted average hourly wage was escalated to 2008 costs based on the mine labor cost index. The final calculated hourly wage was \$44.33/hr. This cost was then converted to a cost per ton of \$1.43 using the average productivity number of 31 tons per man-hour from 2000 to 2007 for similar Montana mines.

Explosives

An explosives unit cost was calculated using assumed powder factors and unit prices of \$0.44/lb for ANFO and \$0.74/lb for emulsion. An additional 15% was added for explosive accessories.

Powder factors of 0.6lb/BCY for dragline overburden, 1.0lb/BCY for shovel overburden and 0.30lb/ton for coal were used. This was



combined with an allowance for 10% wet holes (emulsion used) to calculate a total cost per ton. This cost was then escalated to 2008 costs by using the Mining Cost Service index for explosives. The final calculated explosive cost used in the economic model was \$0.36/ unit, whether a BCY of waste or a ton of coal.

Other Supplies and Services

A unit cost for other supplies and services was included in the 2005 analysis. This cost was updated to a 2008 cost of \$0.12/ton using the producer price index.

NON-CONTROLLABLE COSTS

Non-controllable costs include taxes, fees, royalties, reclamation bonding, general insurance, corporate overhead, and other costs.

Taxes, Fees, and Royalties

Taxes, fees and royalties were added to each economic model in accordance with Montana and Federal regulations. The rates for each are listed below:

•	Black Lung Tax	\$0.55/ton
•	Severance Tax	15%
•	Gross Receipts Tax	5%
•	Reclamation Fee	\$0.35/ton
•	Resource Indemnity Trust Tax	0.4%
•	Royalty Payments (Montana and Other)	12.5%
•	Property Taxes (Powder River County)	3% assessed value
		(851.56 mill levy)
•	Lease Annual Fee	\$3.0/acre
•	Montana Corporate Income Tax	6.75%
•	Federal Corporate Income Tax	35% or 20% AMT

Property taxes were included for mobile mining equipment and fixed facilities (office, shop, warehouse, train loadout and rail spur, etc.). Property tax was not included on the main line railroad as this railroad right of way is owned by the Tongue River Railroad Company. Any property tax would be their responsibility.

Other Non-Controllable Costs

The reclamation bond premium of \$1.5M/year was estimated using an insurance premium rate of 1.5% and a \$100M bond value for each model.



General insurance, corporate overhead, and an allowance for other costs were escalated to 2008 costs from the previous model to 1.2 cents/ton, 10.8 cents/ton, and 6.0 cents/ton respectively.

COAL PRICE

The coal price used in each analysis was calculated based on the following data sources:

- FOB Mine Price for 8,800 Btu/lb PRB coal: SNL Energy, Vol. 4, Issue 35, September 2008
- Burlington Northern Santa Fe (BNSF) common carrier pricing rates.

This analysis was performed for two specific power plant locations to give a range of coal prices. The locations used in the analysis are Fergus Falls, MN and Miles City, MT.

The FOB mine price for PRB coal averaging 8,800 Btu/lb of \$11/ton was obtained from a current SNL Energy's Coal Report⁶. Rail shipping rates were obtained from BNSF for revision 7 of their common carrier rates set in February of 2008. These rates determined the shipping prices of \$7.11/ton and \$22.17/ton for Miles City and Fergus Falls respectively. By adding the FOB mine price to the rail shipping rates, delivered prices of \$18.11/ton and \$33.17/ton are calculated for Miles City and Fergus Falls respectively. These delivered prices were used as the basis to calculate the FOB Otter Creek Mine price, assuming 8,800 Btu/lb coal, by subtracting out the rail shipping cost as if the coal originated from Otter Creek. By subtracting the shipping cost from Otter Creek to both Miles City and Fergus Falls (\$2.04/ton and \$13.14/ton respectively) from the delivered prices resulted in FOB Otter Creek Mine Prices of \$16.07/ton and \$20.03/ton. From these ton unit prices, a price per MBtu was calculated based on 8,800 Btu/lb. This unit price per MBtu was then used to determine the Btu adjusted prices per ton for Otter Creek. In addition, an allowance for reduced sulfur was added to the final FOB mine price for Otter Creek based on a Sulfur credit of \$145/ton of SO₂. This sulfur allowance accounted for \$0.41 of the unit price.

In summary, the final Otter Creek FOB mine prices ranged from \$16.10/ton to \$19.97/ton. The higher of these two prices was used in the analysis. Table 3.5 shows the average price used in each model

⁶ "SNL Energy's Coal Report", Sept. 8, 2008. Volume 4, Issue 35. SNL Financial LC Charlottsville VA 22902.



utilizing the higher rate. The detailed price calculations are shown in Appendix B.

Table 3.5 Average Coal Price for Each Model

	Coal Price
Model	(\$/ton)
LMU5	\$19.82
LMU6	\$20.22
Weighted Average	\$19.97

DISCOUNTED CASH FLOW ANALYSIS AND NPV

A cash flow for each model was created using mining rates of 21.2Mtpa for LMU5 and 12Mtpa for LMU6. The detailed model for each LMU depicting annual cash flows by year is shown in Appendix C.

The mine plan developed by Norwest for the combined Otter Creek area was based on achieving a consistent mined coal quality and smoothing the strip ratio from year to year to avoid wide fluctuations in overburden removal requirements. This plan concentrates mining on private coal lands in the initial production years. NPVs were calculated utilizing this mine plan for each LMU using a 10% discount rate. Table 3.6 summarizes the NPV's from each economic model.

Table 3.6 NPV Summary (10% Discount Rate)

Economic Model	NPV @10%(\$1,000s)
LMU5	28,152
LMU6	57,174
Total	\$85,326

VALUATION

The overall value of the unleased Montana state coal according to the above analysis hinges on the manner in which both analyses (LMUs 5 and 6) are combined in an overall project. The unleased Montana state coal refers to Montana owned coal within the Otter Creek tracts which has not yet been leased. Sections 16 and 36 of Township 4S Range 45E were initially owned by Montana prior to receiving the remaining coal lease areas from the federal government; these two sections have already been leased. The remaining coal with the tracts is held in private leases. The majority of these private leases are owned by GNP-LP. The total recoverable tons for the entire property are 1,308.6Mtons of which 572.3Mtons are unleased Montana state coal.



In a review of the market analysis information provided to the DNRC by Global Energy Decisions⁷, the potential market for Otter Creek coal will reach 30Mtpa by 2011 and 33Mtpa by 2015. Taking into account lead time for permitting and mining construction activities (approximately five years total) it is likely that full production for each LMU would not be realized until late 2014. Since the combined full production of each LMU is 33.2Mtpa, it is feasible that the market could handle the simultaneous startup of both LMUs. This would suggest that the manner in which to combine the NPVs from both LMUs is simply to sum the two values. This results in an Overall NPV of \$85.3M for the entire lease area.

The bonus bid amount for the entire coal property is calculated by summing the NPVs for LMU5 and 6 and dividing by the recoverable tons for the entire property. The result equates to a bonus bid of \$0.0652/ton (\$85.3M/1,308.6Mtons). Multiplying this bonus amount by the amount of unleased Montana state coal yields an overall value under the Income Approach of \$37.3M (\$0.0652/ton x 572.3Mtons).



⁷ Memo to: Monte Mason From: Doug Day, Global Energy Decisions, Dated: May 11, 2007. Re: MT Economic Benefits.

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APPENDIX A

DETAILED FPC CALCULATIONS AND HAUL ROUTES



Caterpillar Inc. Fleet Production and Cost Program



Job Name: Otter Creek State Coal Valuation

Description: Verification of Overburden Truck number assumption. A

generic haul route to produce the same productivity is calculated within FPC. This haul route is then compared with the mine plan layout to determine its practicality. Specific gravity of 2.3

(CAT handbook) and 15% swell was assumed.

Prepared For: Montana DNRC

Prepared By: Norwest Corp

Date: July 24, 2008

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Fleet Production and Cost Analysis

OB Truck Prod Check final Montana DNRC

Generic OB Haul Norwest Corp

July 24, 2008

240 Truck

Operating Schedule

Operator Efficiency (%) Sched Hrs per Year

Fleet Estimates

Fleet Availability (%)
BCY per Sched Hr
Total BCY
Sched Hrs Required
Total \$
\$ per BCY
BCY per Year
Years Required

	1 2300XPA	1 793C
Loader Fill Factor % (30.00 CY) Tons/Pass (3370 lbs/LCY): System Passes per Hauler: Hauler Payload in Tons Percent of Max GVW Loader Cycle Time (Min) First Bucket Dump (Min) Hauler Exchange Time (Min)		90.00 45.50 5.00 227.48 95.69 0.50 0.05
HAULER CYCLE TIMES Load with Exchange Haul Dump and Maneuver Return Potential Cycle Time Wait on Slow Hauler Wait to Load, Bunching NONE Total Cycle Time		2.75 6.99 0.50 4.51 14.75 0.00 0.00 14.75
POTENTIAL PRODUCTION BCY per Hour Avg mph	2,561.60	477.54 16.33

Fleet Production and Cost Analysis

OB Truck Prod Check final Montana DNRC

Norwest Corp

July 24, 2008

Description:

Material Qty (BCY)
lbs per BCY
lbs per LCY

3,875 3,370

Distance	Rolling	Grade	Haul	Return	Description
feet	Resistance %	%	mph Limit	mph Limit	
625	4.00	8.00			ramp up 50 ft
4,375	4.00	0.00			haul along pit
50	4.00	0.00	5.00	5.00	turn
500	4.00	0.00			haul perpendicular to pit
50	4.00	0.00	5.00	5.00	turn
5,000	4.00	0.00			haul along pit

Caterpillar Inc. Fleet Production and Cost Program

FPC

Job Name: Otter Creek State Coal Valuation

Description: Verification of Coal Truck number assumption. A generic haul

route to produce the same productivity is calculated within FPC. This haul route is then compared with the mine plan layout to determine its practicality. Density of 77.6lbs/ft^3 from model for

bank, 15% swell is assumed.

Prepared For: Montana DNRC

Prepared By: Norwest Corp

Date: July 24, 2008

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Due to the many variables involved in earthmoving projects and the consequent possibility of inadvertant errors or omissions in preparing reports of this character, neither Caterpillar Inc. nor the dealer can or does represent or warrant, expressly or implicitly, either the accuracy of this report or that the Caterpillar or competitive equipment referred to in the report will in fact achieve the performance indicated on the job to which this report relates.

Fleet Production and Cost Analysis

Coal Truck Prod Check final 240tonGen Coal Haul 20,000 ft.

Norwest Corp July 24, 2008

240 Truck

Operating Schedule Operator Efficiency (%) Sched Hrs per Year Fleet Estimates Fleet Availability (%) Tons per Sched Hr Total Tons Sched Hrs Required Total \$ \$ per Ton Tons per Year Years Required

Montana DNRC

	1 994F HL	1 793C
Loader Fill Factor % (41.00 CY) Tons/Pass (1822 lbs/LCY): System Passes per Hauler: Hauler Payload in Tons Percent of Max GVW Loader Cycle Time (Min) First Bucket Dump (Min) Hauler Exchange Time (Min)		90.00 33.62 7.00 235.31 97.54 0.60 0.10 0.70
HAULER CYCLE TIMES Load with Exchange Haul Dump and Maneuver Return Potential Cycle Time Wait on Slow Hauler Wait to Load, Bunching NONE Total Cycle Time		4.40 15.55 0.50 8.09 28.54 0.00 0.00 28.54
POTENTIAL PRODUCTION Tons per Hour Avg mph	3,208.79	494.75 15.85

Fleet Production and Cost Analysis

Coal Truck Prod Check final 240ton Montana DNRC No

Norwest Corp

July 24, 2008

Description:

Material Qty (Tons) 1
lbs per BCY 2,095
lbs per LCY 1,822

Distance feet	Rolling Resistance %	Grade %	Haul mph Limit	Return mph Limit	Description
3,750 4,000 50	4.00 4.00 4.00	8.00 0.00 0.00	5.00	5.00	ramp up 250 ft haul
4,000	4.00	0.00			turn haul
50 4,000	4.00 4.00	0.00 0.00	5.00	5.00	turn haul
50 4,000	4.00 4.00	0.00 0.00	5.00	5.00	turn haul

APPENDIX B

DETAILED PRICE CALCULATIONS



FOB Otter Creek Mine Coal Price Estimation using Fergus Falls, MN

	PRB 8,800	Otter Creek
Dist. Spring Creek to Fergus Falls, MN		814
Dist. Spring Creek to Otter Creek		273
Dist. Otter Creek to Fergus Falls, MN		541
Dist. South PRB to Fergus Falls, MN	913	
BNSF Price Spring Creek to Fergus Falls, MN	J	19.54
BNSF Price PRB to Fergus Falls, MN	22.17	
Price per ton-mile	0.024	0.024
Adjusted Price to Otter Creek		13.14

PRB 8,800		
SO2 (lb/MBTU)	0.8	
S (lb/MBTU)	0.4	
S (lb/ton)	7.04	
S%	0.35%	

Otter Creek		
S%		0.21%

Dist. to Fergus Falls	913	541
\$/ton FOB Mine ¹	11.00	
\$/ton Shipping ²	22.17	13.14
BTU/ton	8,800	9,100
\$/MBTU	1.8847	

SO2 Cred	it
Diff S%	0.14%
SO2 (lb/ton)	5.68
Credit (\$/ton S)	\$145.00
Credit (\$/ton coal)	\$ 0.41

FOB Fergus Falls Price	\$ 34.30
FOB Otter Creek Price	\$ 21.16
SO2 Credit	\$ 0.41
Adjusted FOB Otter Creek Price	\$ 21.58

Total Price per Ton FOB Fergus Falls for PRB 8800 BTU Coal minus shipping for Otter Creek 13.14
FOB Otter Creek for PRB 8800 quality coal \$/MBTU FOB Otter Creek 1.138246

^{1.} Value from SNL Energy Coal Report Vol. 4 Iss. 35 - 09/08/2008

^{2.} Values from BNSF common carrier pricing (effective 02/07/2008) and adjusted for distance

FOB Otter Creek Mine Coal Price Estimation using Miles City, MT

	PRB 8,800	Otter Creek
Dist. Otter Creek to Miles City, MT		85
Dist. South PRB to Miles City, MT	293	
Price per ton-mile from Fergus Falls Scenar	0.024	0.024
Adjusted Price to Otter Creek	7.11	2.04

Dist. to Miles City	293	85
\$/ton FOB Mine ¹	11.00	
\$/ton Shipping ²	7.11	2.04
BTU/ton	8,800	9,100
\$/MBTU	1.0292	

FOB Miles City Price	\$ 18.73
FOB Otter Creek Price	\$ 16.69
SO2 Credit	\$ 0.41
Adjusted FOB Otter Creek Price	\$ 17.10
Coal to Liquid Plant (no S credit)	\$ 16.69

PRB 8,80	00
SO2 (lb/MBTU)	0.8
S (lb/MBTU)	0.4
S (lb/ton)	7.04
S%	0.35%

	Otter Cree	ek
S%		0.21%

SO2 Credit												
Diff S%	0.14%											
SO2 (lb/ton)	5.68											
Credit (\$/ton S)	\$145.00											
Credit (\$/ton coal)	\$ 0.41											

Total Price per Ton FOB Miles City for PRB 8800 BTU Coal 18.11

minus shipping for Otter Creek 2.04

FOB Otter Creek for PRB 8800 quality coal 16.07

\$/MBTU FOB Otter Creek 0.913317

^{1.} Value from SNL Energy Coal Report Vol. 4 Iss. 35 - 09/08/2008

^{2.} Values from BNSF common carrier pricing (effective 02/07/2008) and adjusted for distance

APPENDIX C

ANNUAL CASH FLOWS BY YEAR



LMU5 (East, Tracts 1&2) Otter Creek MT State Coal Valuation Model

	Basis	Units	Year -5	Year -4	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 To 10	Year 11 To 15	Year 16 To 20	Year 21 To 25	Year 26 To 30	Year 31 To 35	Year 36 To 40	Year 41 +	Totals
PRODUCTION																					
Tons Produced (000s)		tons/yr						9,053	22,316	22,316	22,316	22,316	111,579	111,579	111,579	111,684	111,579	111,579	109,158	316	877,368
Tons Sold Montana (000s)								1,229	4,583	11,374	8,169	12,061	55,591	44,153	53,924	36,663	42,493	67,459	26,823	0	364,521
Tons Sold Other (000s)								7,371	16,617	9,826	13,031	9,139	50,409	61,847	52,076	69,437	63,507	38,541	76,877	300	468,979
Tons Sold (000s)	95.0%	Recovery						8,600	21,200	21,200	21,200	21,200	106,000	106,000	106,000	106,100	106,000	106,000	103,700	300	833,500
BCY - DRAGLINE Produced (000s)								18,875	54,625	68,625	67,000	75,875	366,625	372,250	365,125	366,375	369,375	381,000	374,125	625	2,880,500
BCY - TRUCK/SHOVEL Produced (000s)								630	1,385	4,305	4,825	11,835	67,345	75,855	77,370	93,640	134,830	235,795	183,220	210	891,245
Total Units (BCY+ tons)								28,105	77,210	94,130	93,025	108,910	539,970	554,105	548,495	566,115	610,205	722,795	661,045	1,135	4,605,245
Strip Ratio (BCY /ROM Ton)								2.27	2.64	3.44	3.39	4.14	4.09	4.23	4.17	4.34	4.76	5.82	5.37	2.78	3.28
BTU/lb (DB)								11,862	11,900	11,953	11,949	11,927	11,935	11,915	11,901	11,896	11,919	11,957	11,953	11,925	11,925
Sulfur % (DB)								0.28	0.28	0.28	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.27	0.24	0.28
LbSO2/MBTU								0.47	0.47	0.47	0.45	0.47	0.47	0.47	0.46	0.49	0.49	0.49	0.46	0.40	0.47
Sodium in Ash%								7.93	7.84	7.49	8.03	7.41	6.73	6.73	6.79	6.80	6.72	6.88	7.43	7.36	6.96
								1.93	7.04	7.42	0.03	7.71	0.73	0.75	0.77	0.00	0.72	0.00	7.43	7.50	0.50
REVENUE Coal Sales Price (FOB Mine)	6 10.02	\$/TON						19.75	19.79	19.95	19.90	19.85	19.91	19.87	19.82	19.74	19.74	19.74	19.85	19.76	19.82
Total Revenue from Coal Sales	\$ 19.82	\$/10N						169,853	419,614	422,893	421,869	420,823	2,110,797	2,106,279	2,100,563	2,094,057	2,092,702	2,092,444	2,058,526	5,929	16,516,347
CASH PRODUCTION COSTS								109,833	419,014	422,093	421,809	420,823	2,110,797	2,100,279	2,100,303	2,094,037	2,092,702	2,092,444	2,038,320	3,929	10,510,547
Controllable Costs																					
Labor	1.43	\$/TON						12,299	30,318	30,318	30,318	30,318	151,588	151,588	151,588	151,731	151,588	151,588	148,299	429	1,191,967
	1.43	\$/10N						12,299	30,316	30,316	30,318	30,318	131,366	131,366	131,366	131,/31	131,366	131,366	140,299	429	1,191,907
Equipment, Materials and Supplies	0.23	\$/BCY						4,256	12,317	15,473	15,107	17,108	82,665	83,934	82,327	82,609	83,285	85,907	84,356	141	649,486
OB Removal Dragline								· ·	*		1			-	55,208	-				150	*
OB Truck - Shovel	0.71	\$/BCY						450	988	3,072	3,443	8,445	48,055	54,127		66,818	96,210	168,254	130,739		635,958
Explosives	0.37	\$/UNIT						13,640	36,534	42,745	42,339	48,170	239,169	244,357	242,298	248,805	264,950	306,280	282,724	533	2,012,543
Coal Loading - Haulage	0.76	\$/TON						6,546	16,138	16,138	16,138	16,138	80,689	80,689	80,689	80,765	80,689	80,689	78,938	228	634,474
Other Support Equipment	0.44	\$/TON						3,766	9,284	9,284	9,284	9,284	46,420	46,420	46,420	46,464	46,420	46,420	45,413	131	365,010
Other Supplies & Services	0.12	\$/TON						1,028	2,533	2,533	2,533	2,533	12,667	12,667	12,667	12,679	12,667	12,667	12,393	36	99,607
Coal Handling Plant	0.19	\$/TON						1,667	4,108	4,108	4,108	4,108	20,541	20,541	20,541	20,560	20,541	20,541	20,095	58	161,519
Reclamation	0.35	\$/TON						3,036	7,484	7,484	7,484	7,484	37,422	37,422	37,422	37,457	37,422	37,422	36,610	106	294,255
Total Controllable Costs \$/SALES TON								46,687	119,704	131,155	130,754	143,588	719,216	731,745	729,161	747,888	793,773	909,768	839,567	1,812	6,044,818
NON-CONTROLLABLE COSTS								5.43	5.65	6.19	6.17	6.77	6.79	6.90	6.88	7.05	7.49	8.58	8.10	6.04	7.25
	0.550	¢./T						4,730	11.660	11.660	11.660	11,660	58,300	58,300	58,300	58,355	58,300	58,300	57.025	165	458,425
Black Lung Tax		\$/Ton							11,660	11,660	11,660	,			,	*	· · · · · · · · · · · · · · · · · · ·	*	57,035	165	*
Severance Tax	15.0%	% of Revenue						17,500	43,314	43,671	43,559	43,445	218,164	217,671	217,048	216,328	216,192 72,084	216,163	212,724	561	1,706,340
Gross Receipts Tax	5.0%	% of Revenue						5,853	14,458	14,577	14,540	14,502	72,741	72,577	72,369	72,129	· · · · · · · · · · · · · · · · · · ·	72,074	70,928	207	569,038
Reclamation Fees	0.350	\$/Ton						3,010	7,420	7,420	7,420	7,420 1,160	37,100	37,100	37,100 5,790	37,135 5,770	37,100 5,767	37,100 5.766	36,295	105 17	291,725
Resource Indemnity Trust Tax	0.4%	% of Revenue						468	1,157	1,166	1,163	,	5,819	5,806	· ·	5,770		5,766	5,674		45,523
Royalty Payments MT State	12.5%	% of Revenue						3,035	11,339	28,360	20,320	29,926	138,374	109,667	133,575	90,449	104,864	166,456	66,557	0	902,923
Royalty Payments Other	12.5%	% of Revenue						18,197	41,113	24,502	32,414	22,677	125,475	153,618	128,996	171,308	156,723	95,099	190,759	741	1,161,621
Property Taxes	16,682	\$000s						16,703	16,746	16,746	16,746	16,746	83,732	83,732	83,732	83,732	83,732	83,732	83,732	16,746	686,562
Lease Rental Fee	19	\$000s						19	19	19	19	19	97	97	97	97	97	97	97	19	798
Reclamation Bonding (premium)	1,500	\$000s						1,500	1,500	1,500	1,500	1,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	1,500	61,500
General Insurance	0.012	\$/Unit						336	923	1,125	1,112	1,302	6,453	6,622	6,555	6,765	7,292	8,638	7,900	14	55,035
Corporate Overhead + Joint Facilities	0.108	\$/Unit						3,023	8,304	10,124	10,005	11,714	58,076	59,596	58,993	60,888	65,630	77,739	71,098	122	495,313
Other	0.060	\$/Unit						1,679	4,613	5,624	5,558	6,508	32,264	33,109	32,774	33,827	36,461	43,189	39,499	68	275,174
Total Non-Controllable Cash Costs								76,053	162,566	166,495	166,017	168,579	844,097	845,396	842,829	844,284	851,743	871,855	849,798	20,265	6,709,975
\$/SALES TON								8.84	7.67	7.85	7.83	7.95	7.96	7.98	7.95	7.96	8.04	8.23	8.19	67.55	8.05
TOTAL CASH COSTS								122,740	282,270	297,650	296,771	312,167	1,563,313	1,577,141	1,571,989	1,592,172	1,645,515	1,781,622	1,689,364	22,076	12,754,793
\$/SALES TON								14.27	13.31	14.04	14.00	14.72	14.75	14.88	14.83	15.01	15.52	16.81	16.29	73.59	15.30

LMU5 (East, Tracts 1&2) Otter Creek MT State Coal Valuation Model

Procession		Basis	Units	Year -5	Year -4	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 To 10	Year 11 To 15	Year 16 To 20	Year 21 To 25	Year 26 To 30	Year 31 To 35	Year 36 To 40	Year 41 +	Totals
Property column Property c	PRODUCTION	24325	Cinto	1001	1011	7011 0	1011 2	1011 1	1011 1	1011 2	70070	1011	700.0	1001 0 10 10	1001111010	10101020	1001 21 10 20	1001 20 10 00	10011000	10010010	100111	Tours
Decision of the south of the	Tons Produced (000s)		tons/yr						9,053	22,316	22,316	22,316	22,316	111,579	111,579	111,579	111,684	111,579	111,579	109,158	316	877,368
Part	Tons Sold Montana (000s)		·						1,229		11,374	8,169	12,061	55,591	44,153	53,924	36,663	42,493				364,521
Property	Tons Sold Other (000s)									16,617	9,826	13,031	9,139	50,409	61,847	52,076	69,437	63,507	38,541	76,877	300	468,979
Per	Tons Sold (000s)	95.0%	Recovery						8,600	21,200	21,200	21,200	21,200	106,000	106,000	106,000	106,100	106,000	106,000	103,700	300	833,500
Marche Ministry No.	BCY - DRAGLINE Produced (000s)		-						18,875	54,625	68,625	67,000	75,875	366,625	372,250	365,125	366,375	369,375	381,000	374,125	625	2,880,500
Page	BCY - TRUCK/SHOVEL Produced (000s)								630	1,385	4,305	4,825	11,835	67,345	75,855	77,370	93,640	134,830	235,795	183,220	210	891,245
Part	Total Units (BCY+ tons)								28,105	77,210	94,130	93,025	108,910	539,970	554,105	548,495	566,115	610,205	722,795	661,045	1,135	4,605,245
Sides 19	Strip Ratio (BCY /ROM Ton)								2.27	2.64	3.44	3.39	4.14	4.09	4.23	4.17	4.34	4.76	5.82	5.37	2.78	3.28
Sides 19	BTU/lb (DB)								11,862	11,900	11,953	11,949	11,927	11,935	11,915	11,901	11,896	11,919	11,957	11,953	11,925	11,925
Maintan Main	Sulfur % (DB)								0.28	0.28	0.28	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.27	0.24	0.28
Part	LbSO2/MBTU								0.47	0.47	0.47	0.45	0.47	0.47	0.47	0.46	0.49	0.49	0.49	0.46	0.40	0.47
Properties	Sodium in Ash%								7.93	7.84	7.49	8.03	7.41	6.73	6.73	6.79	6.80	6.72	6.88	7.43	7.36	6.96
Temperature	EBITDA												-									
Properties 1									47,113	137,344	125,243	125,098		547,484	529,137	528.574	501.884	447,187	310,821	369,162	(16,148)	3.761.554
Properties									-	*	,	1	,	-	-		ĺ	· ·			` ′ ′	
Personan										-1.4	=10.0		-				****		3112	312 0	(= 11=2)	
Political politicala political political political political political political pol			\$/Unit						43,931	44,143	44.143	44,143	44,143	263,320	177.558	223,463	57,020	80.951	49,670	375	375	1.073.233
My State Track (19 0 29 MeV) My State Track (-		,										-	-	· ·	,			-			
Section 1.5		6.75%									-			-		-				· ·		
An of the form of the field Control Cont													-		· ·	-			-	7	0	· ·
CAPITAL	After Tax Net Income								2,486		63,371	63,258		222,044	274,721	238,411	347,613	286,174	204,061	288,167	(16,523)	2,097,022
Postaling Figuration Figu	CAPITAL																					
Part	Working Capital							6,250														6,250
Mericulities	Permitting - Engineering					2,500																2,500
Continuing Plant Miscellamors plagingers and supplies Continuing Plant Continuing	Exploration Drilling					1,500																1,500
Michalenon-Repipment and upplies long long long long long long long long	Mine Facilities							14,500														14,500
Desplies - 10 ord Desp	Coal Handling Plant							35,000														35,000
Designer - 110 cycl 30 cycl Rock Showel 40 cycl One Book Tracks 40 cycl One Book Tr	Miscellaneous Equipment and supplies							846	846	1,691				3,382		3,382		3,382				13,529
30 cyal Rack Showed	Dragline - 70 cyd						-	-														-
2019 2020 From Reck Tracks	Dragline - 110 cyd					150,000	150,000	149,000						1,500		9,500		1,500				461,500
210 240 Ton Coal Trucks	30 cyd Rock Shovel							19,600								19,600						39,200
240 Tom Crail Trucks 4 1	20 cyd Rock Shovel							-								0						-
41 GOM Wise Llander 20 cytl Coal Pickaevators 20 cytl Coal Detain Dump Trucks 30 cytl Coal Excavators 40 cytl Coal Detain Dump Trucks 50 cytl Coal Detain Dump	210 to 240 Ton Rock Trucks							35,400						35,400		35,400		35,400				141,600
20 cyd Coal Exervators 290 to 320 Ceal Borton Dump Trucks Mobile Equipment								*						35,400		-		35,400				
290 to 320 Coal Bottom Dump Trucks	41 cyd Coal Wheel Loader							11,800						11,800		11,800		11,800				47,200
Mobile Equipment Mobile	-							-								0						-
Reclamation Equipment Rail Spur Rail Spur Rail Loop Total Capital CASH FLOW & NPV Half of Rail Line to Miles City Depreciation After Tax Net Income Less Capital Rail Line to Miles City Plus Interest 4% Year -3 Year -2 Year -1 Year -3 Year -2 Year -1 Year -1 Year -3 Year -2 Year -1 Yea	=							-						0		0		0				-
Rail Spur Rail Loop Total Capital																,		· ·				
Rail Loop Rail Rail Loop Rail Loop Rail Rail	Reclamation Equipment							11,139						11,139		11,139		11,139				44,555
Rail Loop Rail Rail Loop Rail Loop Rail Rail	Rail Spur							11,000														11,000
CASH FLOW & NPV Half of Rail Line to Miles City Depreciation After Tax Net Income Less Capital Recapture Half Rail Line to Miles City Plus Interest Year -5 Year -4 Year -3 Year -2 Vear -1 Vear 15 Year 15 Year 16 Year 15 Year 16 Year 17 Year 18 Year 27 Year 4 Year 5 Year 67 To 10 Year 11 To 15 Year 16 To 20 Year 11 To 15 Year 16 To 20 Year 11 To 25 Year 17 To 20 Year 21 To 25 Year 31 To 35 Year 30 To 40,634 Year 31 To 35 Year 36 To 40 Year 11 To 15 Year 17 To 18 Net Cash Flow Net Cash Flow Adaptive Half Rail Line to Miles City Plus Interest Adaptive Half Rail Line to Miles City Plus Interest Year 21 To 25 Year 21 To 25 Year 21 To 25 Year 21 To 25 Year 31 To 35 Year 36 To 40 Year 31 To 35 Year 36 To 40 Year 11 To 1s Year 17 To 1s Year 11 To 15 Year 21 To 25 Year 21 To 25 Year 21 To 25 Year 21 To 25 Year 24 To 30 Year 31 To 35 Year 36 To 40 Year 11 To 1s Year 11 To 1s Year 11 To 15 Year 11 To 15 Year 11 To 15 Year 11 To 15 Year 12 To 25 Year 24 Year 31 To 35 Year 36 To 40 Year 11 To 1s Year 11 To 1s Year 11 To 15 Year 11	Rail Loop							1,300														1,300
Half of Rail Line to Miles City Depreciation After Tax Net Income Less Capital Recapture Half Rail Line to Miles City Plus Interest Year -5 Year -4 Year -5 Year -4 Year -5 Vear -1 Vear 15 Year -1 Vear 15 Vear -1 Vear 15 Vear -1 Vear 15 Vear 16 Vear 15 Vear 16 Vear 15 Vear 16 Vear 20 Vear 21 Vear 16 Vear 16 Vear 16 Vear 16 Vear 17 Vear 16 Vear 16 Vear 16 Vear 17 Vear 16 Vear 16 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 17 Vear 16 Vear 16 Vear 17 Vear	Total Capital	-		0	0	154,000	150,000	359,234	846	1,691	0	0	0	126,621	0	154,221	0	126,621	0	0	0	1,073,233
Depreciation	CASH FLOW & NPV												-									
After Tax Net Income Less Capital Less Capital Recapture Half Rail Line to Miles City Plus Interest	Half of Rail Line to Miles City						31,000	62,500														93,500
Less Capital Recapture Half Rail Line to Miles City Plus Interest 4% Plus Interest 4%	Depreciation								43,931	44,143	44,143	44,143		263,320	·	· · · · · · · · · · · · · · · · · · ·	57,020		,			
Recapture Half Rail Line to Miles City Plus Interest 4% Long Figure 1.00 8,521 8,521 8,521 8,521 8,521 8,521 8,521 8,521 8,521 8,521 42,605	After Tax Net Income										63,371	63,258	50,410		274,721	,	347,613		204,061	288,167	(16,523)	
Year -5 Year -4 Year -3 Year -2 Year -1 Year 1 Year 2 Year 3 Year 2 Year 1 Year 3 Year 3 Year 2 Year 3 Year 4 Year 3 Year 1 Year 1 Year 2 Year 3 Year 3 Year 2 Year 3 Year 3 Year 3 Year 4 Year 3 Year 1 Year 1 Year 3 Year 3 Year 3 Year 4 Year 3 Year 6 To 10 Year 11 Year 10 Year 11	Less Capital			0	0	154,000	150,000	359,234		1,691	0	0	0	126,621	0	154,221	0	126,621	0	0	0	1,073,233
Net Cash Flow - 0 0 (154,000) (181,000) (421,734) 54,093 123,799 116,035 115,921 103,073 401,348 494,884 307,653 404,634 240,504 253,732 288,542 (16,148) 2,131,337	Recapture Half Rail Line to Miles City	Plus Interest	4%												,							
				Year -5	Year -4																	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			-	0	0	(154,000)	(181,000)	(421,734)	-	-	•	-		-	-							
NPV 10% 28,152		100/	20 152				ļ	ļ	6.29	5.84	5.47	5.47	4.86	3.79	4.67	2.90	3.81	2.27	2.39	2.78	(53.83)	2.56

LMU6 (West, Tract 3) Otter Creek MT State Coal Valuation Model

	Basis	Units	Year -5	Year -4	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 To 10	Year 11 To 15	Year 16 To 20	Year 21 To 25	Year 26 To 30	Year 31 To 35	Year 36 To 40	Year 41 +	Totals
PRODUCTION																					
Tons Produced (000s)		tons/yr						5,053	12,632	12,632	12,632	12,632	63,158	63,158	63,158	63,158	63,158	63,158	63,158	2,421	500,105
Tons Sold Montana (000s)								106	344	1,490	4,178	4,480	22,658	25,016	30,372	21,483	21,521	32,102	42,181	1,913	207,844
Tons Sold Other (000s)								4,694	11,656	10,510	7,822	7,520	37,342	34,984	29,628	38,517	38,479	27,898	17,819	387	267,256
Total Tons Sold (000s)	95.0%	Recovery						4,800	12,000	12,000	12,000	12,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	2,300	475,100
BCY - DRAGLINE Produced (000s)								12,125	25,875	26,500	28,000	26,875	142,000	153,000	166,375	166,750	166,125	175,250	173,625	6,500	1,269,000
BCY - TRUCK/SHOVEL Produced (000s)								210	630	1,285	1,495	1,395	11,210	23,880	38,620	39,505	62,285	81,905	117,535	7,230	387,185
Total Units (BCY+ tons)								17,135	38,505	39,785	41,495	40,270	213,210	236,880	264,995	266,255	288,410	317,155	351,160	16,030	2,131,285
Strip Ratio (BCY /ROM Ton)								2.57	2.21	2.32	2.46	2.36	2.55	2.95	3.42	3.44	3.81	4.29	4.85	5.97	2.54
BTU/lb (DB)								12,047	12,012	11,934	11,933	11,930	11,912	11,925	11,983	11,969	11,941	11,944	11,936	11,962	11,946
Sulfur % (DB)								0.28	0.28	0.29	0.29	0.29	0.30	0.29	0.27	0.28	0.28	0.28	0.27	0.26	0.28
LbSO2/MBTU								0.47	0.46	0.49	0.49	0.48	0.51	0.49	0.45	0.47	0.47	0.46	0.45	0.44	0.47
Sodium in Ash%								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REVENUE																					
Coal Sales Price (FOB Mine)	\$ 20.22	\$/TON (AVG)						20.28	20.16	20.01	20.07	20.09	20.12	20.20	20.31	20.27	20.22	20.23	20.33	20.39	20.22
Total Revenue from Coal Sales								97,337	241,916	240,158	240,849	241,079	1,206,922	1,211,903	1,218,581	1,216,022	1,213,387	1,213,710	1,219,557	46,890	9,608,312
CASH PRODUCTION COSTS																					
Controllable Costs																					
Labor	1.43	\$/TON						6,864	17,161	17,161	17,161	17,161	85,804	85,804	85,804	85,804	85,804	85,804	85,804	3,289	679,428
Equipment, Materials and Supplies																					
OB Removal Dragline	0.23	\$/BCY						2,734	5,834	5,975	6,313	6,060	32,018	34,498	37,514	37,598	37,457	39,515	39,148	1,466	286,130
OB Truck - Shovel	0.71	\$/BCY						150	450	917	1,067	995	7,999	17,040	27,558	28,189	44,444	58,444	83,868	5,159	276,280
Explosives	0.36	\$/UNIT						7,918	18,249	18,706	19,316	18,879	98,628	107,075	117,109	117,558	125,465	135,723	147,859	6,585	939,071
Coal Loading - Haulage	0.76	\$/TON						3,654	9,135	9,135	9,135	9,135	45,673	45,673	45,673	45,673	45,673	45,673	45,673	1,751	361,654
Other Support Equipment	0.51	\$/TON						2,438	6,095	6,095	6,095	6,095	30,473	30,473	30,473	30,473	30,473	30,473	30,473	1,168	241,296
Other Supplies & Services	0.12	\$/TON						574	1,434	1,434	1,434	1,434	7,170	7,170	7,170	7,170	7,170	7,170	7,170	275	56,777
Coal Handling Plant	0.19	\$/TON						930	2,325	2,325	2,325	2,325	11,627	11,627	11,627	11,627	11,627	11,627	11,627	446	92,067
Reclamation	0.31	\$/TON						1,500	3,751	3,751	3,751	3,751	18,753	18,753	18,753	18,753	18,753	18,753	18,753	719	148,490
Total Controllable Costs								26,762	64,433	65,498	66,596	65,834	338,145	358,113	381,681	382,846	406,867	433,183	470,376	20,857	3,081,192
\$/SALES TON								5.58	5.37	5.46	5.55	5.49	5.64	5.97	6.36	6.38	6.78	7.22	7.84	9.07	6.49
NON-CONTROLLABLE COSTS																					
Black Lung Tax	0.550	\$/Ton						2,640	6,600	6,600	6,600	6,600	33,000	33,000	33,000	33,000	33,000	33,000	33,000	1,265	261,305
Severance Tax	15.0%	% of Revenue						10,019	24,973	24,782	24,857	24,882	124,788	125,331	126,059	125,780	125,493	125,528	126,165	4,800	993,457
Gross Receipts Tax	5.0%	% of Revenue						3,360	8,345	8,281	8,306	8,314	41,616	41,797	42,040	41,947	41,851	41,863	42,075	1,620	331,415
Reclamation Fees	0.350	\$/Ton						1,680	4,200	4,200	4,200	4,200	21,000	21,000	21,000	21,000	21,000	21,000	21,000	805	166,285
Resource Indemnity Trust Tax	0.4%	% of Revenue						269	668	662	664	665	3,329	3,344	3,363	3,356	3,348	3,349	3,366	130	26,513
Royalty Payments MT State	12.5%	% of Revenue						270	866	3,728	10,481	11,251	56,972	63,161	77,106	54,423	54,402	81,171	107,172	4,875	525,878
Royalty Payments Other	12.5%	% of Revenue						11,897	29,374	26,291	19,625	18,884	93,893	88,327	75,217	97,579	97,272	70,543	45,273	986	675,161
Property Taxes	9,790	\$000s						9,812	9,855	9,855	9,855	9,855	49,274	49,274	49,274	49,274	49,274	49,274	49,274	9,855	404,000
Lease Rental Fee	9	\$000s						9	9	9	9	9	46	46	46	46	46	46	46	9	380
Reclamation Bonding (premium)	1,500	\$000s						1,500	1,500	1,500	1,500	1,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	1,500	61,500
General Insurance	0.012	\$/Unit						205	460	475	496	481	2,548	2,831	3,167	3,182	3,447	3,790	4,197	192	25,470
Corporate Overhead + Joint Facilities	0.108	\$/Unit						1,843	4,141	4,279	4,463	4,331	22,932	25,477	28,501	28,637	31,020	34,111	37,769	1,724	229,228
Other	0.060	\$/Unit						1,024	2,301	2,377	2,479	2,406	12,740	14,154	15,834	15,909	17,233	18,951	20,983	958	127,349
Total Non-Controllable Cash Costs								44,528	93,291	93,040	93,536	93,379	469,638	475,242	482,106	481,633	484,885	490,126	497,819	28,719	3,827,941
\$/SALES TON								9.28	7.77	7.75	7.79	7.78	7.83	7.92	8.04	8.03	8.08	8.17	8.30	12.49	8.06
TOTAL CASH COSTS								71,290	157,724	158,539	160,132	159,213	807,783	833,355	863,787	864,479	891,751	923,308	968,195	49,576	6,909,133
\$/SALES TON								14.85	13.14	13.21	13.34	13.27	13.46	13.89	14.40	14.41	14.86	15.39	16.14	21.55	14.54

LMU6 (West, Tract 3) Otter Creek MT State Coal Valuation Model

	Basis	Units	Year -5	Year -4	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 To 10	Year 11 To 15	Year 16 To 20	Year 21 To 25	Year 26 To 30	Year 31 To 35	Year 36 To 40	Year 41 +	Totals
PRODUCTION																					
Tons Produced (000s)		tons/yr						5,053	12,632	12,632	12,632	12,632	63,158	63,158	63,158	63,158	63,158	63,158	63,158	2,421	500,105
Tons Sold Montana (000s)		-						106	344	1,490	4,178	4,480	22,658	25,016	30,372	21,483	21,521	32,102	42,181	1,913	207,844
Tons Sold Other (000s)								4,694	11,656	10,510	7,822	7,520	37,342	34,984	29,628	38,517	38,479	27,898	17,819	387	267,256
Total Tons Sold (000s)	95.0%	Recovery						4,800	12,000	12,000	12,000	12,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	2,300	475,100
BCY - DRAGLINE Produced (000s)	İ	•						12,125	25,875	26,500	28,000	26,875	142,000	153,000	166,375	166,750	166,125	175,250	173,625	6,500	1,269,000
BCY - TRUCK/SHOVEL Produced (000s)								210	630	1,285	1,495	1,395	11,210	23,880	38,620	39,505		81,905	117,535	7,230	387,185
Total Units (BCY+ tons)								17,135	38,505	39,785	41,495	40,270	213,210	236,880	264,995	266,255		317,155	351,160	16,030	2,131,285
Strip Ratio (BCY /ROM Ton)								2.57	2.21	2.32	2.46	2.36	2.55	2.95	,			4.29		5.97	2.54
BTU/lb (DB)	İ							12,047	12,012	11,934	11,933	11,930	11,912	11,925		11,969		11,944	11,936	11,962	11,946
Sulfur % (DB)								0.28	0.28	0.29	0.29	0.29	0.30	0.29	0.27	0.28		0.28	0.27	0.26	0.28
LbSO2/MBTU								0.47	0.46	0.49	0.49	0.48	0.51	0.49	0.45	0.47		0.46	0.45	0.44	0.47
Sodium in Ash%								0.00	0.40	0.49	0.49	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Soutum in Asir/o								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EBITDA												-									
Total EBITDA								26,047	84,192	81,619	80,716	81,866	399,139	378,547	354,794	351,543	-	290,402	251,363	(2,686)	2,699,179
\$/SALES TON								5.43	2.19	2.05	1.95	2.03	1.87	1.60	1.34	1.32	1.12	0.92	0.72	(0.17)	1.27
DEPRECIATION AND TAXES												-									
Depreciation		\$/Unit						25,885	26,096	26,096	26,096	26,096	156,425	106,194	132,482	33,482	48,345	29,807	375	375	637,756
Net Income Before Taxes								162	58,096	55,523	54,620	55,770	242,714	272,353	222,312	318,061	273,291	260,595	250,988	(3,061)	2,061,423
MT State tax	6.75%							5	1,961	1,874	1,843	1,882	8,192	9,192	7,503	10,735	9,224	8,795	8,471	0	69,676
Federal Tax (35% or 20% AMT)	varies							30	10,739	10,264	10,097	10,309	44,867	50,347	41,096	58,796	50,520	48,173	46,397	0	381,635
After Tax Net Income								127	45,396	43,385	42,680	43,578	189,655	212,815	173,713	248,531	213,547	203,627	196,120	(3,061)	1,610,111
CAPITAL																					
Working Capital							6,250														6,250
Permitting - Engineering					2,500																2,500
Exploration Drilling					1,500																1,500
Mine Facilities							14,500														14,500
Coal Handling Plant							35,000														35,000
Miscellaneous Equipment and supplies							846	846	1,691				3,382		3,382		3,382				13,529
Dragline - 70 cyd					80,000	80,000	80,000						1,500		6,500		1,500				249,500
Dragline - 110 cyd						-	-										·				-
30 cyd Rock Shovel							9,800								9,800						19,600
20 cyd Rock Shovel							· -								0						
210 to 240 Ton Rock Trucks							17,700						17,700		17,700		17,700				70,800
240 Ton Coal Trucks							17,700						17,700		17,700		17,700				70,800
41 cyd Coal Wheel Loader							5,900						5,900		5,900		5,900				23,600
20 cyd Coal Excavators							-						- ,		0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				-
290 to 320 Coal Bottom Dump Trucks							_						0		0		0				
Mobile Equipment							23,900						23,900		23,900		23,900				95,600
Reclamation Equipment							5,569						5,569		5,569		5,569				22,277
							ŕ						ŕ				Í				-
Rail Spur							11,000														11,000
Rail Loop							1,300														1,300
Total Capital	-		0	0	84,000	80,000	229,465	846	1,691	0	0	0	75,651	0	90,451	0	75,651	0	0	0	637,756
CASH FLOW & NPV												-									
Half of Rail Line to Miles City						31,000	62,500														93,500
Depreciation								25,885	26,096	26,096	26,096	26,096	156,425	106,194	132,482	33,482	48,345	29,807	375	375	637,756
After Tax Net Income								127	45,396	43,385	42,680	43,578	189,655	212,815	173,713	248,531	213,547	203,627	196,120	(3,061)	1,610,111
Less Capital			0	0	84,000	80,000	229,465	846	1,691	0	0	0	75,651	0	90,451	0	75,651	0	0	0	637,756
Recapture Half Rail Line to Miles City	Plus Interest	4%						8,521	8,521	8,521	8,521	8,521	42,605	42,605							127,815
			Year -5	Year -4	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 To 10	Year 11 To 15	Year 16 To 20	Year 21 To 25	Year 26 To 30	Year 31 To 35	Year 36 To 40	Year 41 +	Totals
Net Cash Flow		-	0	0	(84,000)	(111,000)	(291,965)	33,687	78,322	78,002	77,297	78,195	313,034	361,614	215,743	282,012	186,241	233,434	196,495	(2,686)	1,644,427
\$/SALES TON								7.02	6.53	6.50	6.44	6.52	5.22	6.03	3.60	4.70	3.10	3.89	3.27	(1.17)	3.46
NPV	10%	57,174					•	•													



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